

CURRICULUM VITÆ

Joan Serra-Sagristà

September 3, 2024

Contents

PERSONAL PARTICULARS	3
ACADEMIC DATA	4
1 University Degrees	4
2 Teaching Positions	4
3 Teaching Experience	5
3.1 PhD Thesis Supervision	6
3.2 Master Thesis Supervision	10
3.3 Undergraduate Projects Supervision	14
4 Research Activity	18
4.1 European Union	18
4.2 Spain	24
4.3 Catalonia	32
4.4 America	37
4.5 Other Funding Bodies	38
4.5.1 Algeria	38
4.5.2 Iran	38
4.5.3 China	39
4.6 Universitat Autònoma de Barcelona	39
4.7 Junta de Andalucía	41
5 Publications	42
5.1 Books	42
5.2 Journal Papers. Clarivate Analytics InCites JCR indexed	44
5.3 Journal Papers. Other indices	55
5.4 Top Conference Papers	56
5.5 Conference Papers	65
5.6 Dissemination and Public Outreach Activities	72
6 Doctorate Research	73
7 Conferences	74
8 Patents and Utility Models	81
9 Taught Courses and Seminars	82
10 Attended Courses, Seminars and Meetings	85
11 Honors, Awards	89
12 Activities in Small Enterprises	90
13 Research and Teaching Merits	91
13.1 Teaching	91
13.2 Research	92

PERSONAL PARTICULARS

Professional category: Full Professor
Center: School of Engineering
Group: Group on Interactive Coding of Images
Knowledge area: Computation Sciences and Artificial Intelligence
Department: Information and Communications Engineering
University: Universitat Autònoma de Barcelona
Specialization: UNESCO Code 120308

Government Employee Number: 4664307313 A0504
Address: Department of Information and Communications Engineering
School of Engineering
Universitat Autònoma de Barcelona
Bellaterra (Cerdanyola del Vallès)
E-08290 Barcelona, Spain
Telephone: +34-93-581 18 61
e-mail: Joan.Serra@uab.cat

ACADEMIC DATA

1 University Degrees

Degree	Center	Date of issue
Bachelor in Computer Science	Univ. Autònoma Barcelona	10 September 1992
Master Thesis in Computer Science	Univ. Autònoma Barcelona	September 1994
PhD Thesis in Computer Science	Univ. Autònoma Barcelona	December 1999

2 Teaching Positions

Category	Center	Dedication	From	Until
Full Professor	Graduate School of Engineering, EE - UAB	Full-time	18 October 2019	...
Associate Professor	Graduate School of Engineering, EE - UAB	Full-time	2 February 2002	17 October 2019
Assistant Professor	School of Computer Studies at Sabadell, EUIS - UAB	Full-time	November 99	January 2002
Faculty Assistant	Science Faculty UAB	Full-time	September 97	October 99
Univ. School Assistant	Science Faculty UAB	Full-time	September 93	September 97
Univ. School Assistant	School of Computer Studies at Sabadell, EUIS - UAB	Full-time	September 92	September 93

3 Teaching Experience

Faculty	Degree	Subject	Courses	
EDFC UAB	Doctorate Computer Scien.	Image Coding	2002-06	
U. Almeria	Doctorate Computer Scien.	Image Coding	2009-10	
U. Miguel Hernández	Mast. Telecommunications	Image Coding	2014-15	
SE UAB	Data Engineering Degree	Graphs, Topology and Discrete Geometry	2019-20	
	Mást. IoT for E-Health	Standards in Digital Health and Interoperability	2018-19	
	Mast. Computer Science	Network and Inf. Technol.	2014-18	
	Mast. CAPTIS	Image Coding	2011-14	
	Mast. Multimedia Tech.	Image Coding	2010-13	
	Mast. Adv. Computer Sci.	Image Coding	2010-11	
	Computer Science Degree		Information and Security (T)	2017-18
			Discrete Mathematics (T)	2010-14
			Data Compression (T)	2021-24
			Final Degree Projects	2014-24
	Computational Mathematics Degree	Information Theory (T)	2021-24	
	ETSE UAB	Mast. Adv. Computer Sci.	Image Coding	2006-10
		Mast. Multimedia Tech.	Image Coding	2008-10
Computer Science Eng.		Automata Theory (T)	2000-10	
		Automata Theory (Pr)	1998-10	
		Symbolical Calculus Tools	1999-04	
		Graphs and Complexity (T)	2004-07	
		Graphs and Complexity (Pr)	2001-02	
		Final Career Projects	1999-07	
EUIS UAB	Tech. Computer Science	Automata Theory (T)	1999-00	
		Automata Theory (Pr)	1998-00	
		Automata Theory (Pc)	1998-00	
		Algo. and Prog. II (Pc)	1998-99	
Science UAB	Computer Science Eng.	Automata Theory (T+Pr)	1993-97	
		Graphs and Complexity (T)	1993-97	
		Graphs and Complexity (Pr)	1993-97	
		Graphs and Complexity (Pc)	1993-97	
		Information Theory (Pc)	1996-97	
		Teleprocessing (Pc)	1993-96	
Science UAB	Computer Science Bach.	Automata Theory (T+Pr)	1992-93	
		Cybernetics (Pr)	1992-93	
		Teleprocessing (Pc)	1992-93	
		Algo. and Prog. I (Pc)	1992-93	

3.1 PhD Thesis Supervision

1. Student: David Alegre Alarza
Title: "Data Compressibility" (PhD thesis)
Organism: Universitat Autònoma de Barcelona (UAB).
Date of Public Defense: In process, expected April 2028.

Granted Research:
* Reference: PRE2022-101265 MICINN (Programa Formación de Personal Investigador)
* Period: 01/05/2024 – 31/04/2028.
2. Student: Bahareh Ghanati
Title: "Data compaction for rainfall-runoff modeling" (PhD thesis)
Organism: Universitat Autònoma de Barcelona (UAB).
Date of Public Defense: In process, expected October 2025.

** Period: 01/11/2021 – 31/10/2025.
3. Student: Oscar Maireles González
Title: "Astronomical Data Compression" (PhD thesis)
Organism: Universitat Autònoma de Barcelona (UAB).
Co-supervisor: Miguel Hernández-Cabronero, UAB
Date of Public Defense: In process, expected October 2024.

** Period: 01/11/2020 – 31/10/2024.
4. Student: Sebastià Mijares-Verdú
Title: "Remote sensing data compression with neural networks" (PhD thesis)
Organism: Universitat Autònoma de Barcelona (UAB).
Co-supervisor: Joan Bartrina-Rapesta, UAB
Date of Public Defense: July 28, 2024.
Qualification: Excellent Cum Laude
Dissertation Committee:
Dr. Victor Francisco Sánchez Silva University of Warwick, Great Britain
Dr. Oscar Jose Pellicer Valero University of Valencia
Dr. Manuel Isaac Martinez Torres Philips Medizin Systeme Boblingen GmbH, Germany

Granted Research:
* Reference: PRE2019-088824 MICINN (Programa Formación de Personal Investigador)
* Period: 01/10/2020 – 30/09/2024.
5. Student: Hing Fai Kevin Chow
Title: "Compressed Data Structures" (PhD thesis)
Organism: Universitat Autònoma de Barcelona (UAB).
Co-supervisor: Ian Blanes, UAB
Date of Public Defense: July 27, 2022.
Qualification: Excellent Cum Laude
Dissertation Committee:

Dr. Joan Bartrina-Rapesta Universitat Autònoma de Barcelona
Dr. Fernando Silva Coira Universidade da Corunya, Spain
Dr. Cecilia Hernández Rivas Universidad de Concepción, Chile

Granted Research:

* Reference: BES-2016-078369 MINECO (Programa Formación de Personal Investigador)

* Period: 01/10/2017 – 30/09/2021.

6. Student: Dion Tzamarías

Title: "Graph wavelet data compression" (PhD thesis)

Organism: Universitat Autònoma de Barcelona (UAB).

Co-supervisor: Ian Blanes, UAB

Date of Public Defense: July 29, 2022.

Qualification: Excellent Cum Laude

Dissertation Committee:

Dr. Victor Francisco Sánchez Silva University of Warwick, Great Britain

Dr. Manuel Isaac Martínez Torres Karlsruhe Institute of Technology, Germany

Dr. Joan Bartrina-Rapesta Universitat Autònoma de Barcelona

Granted Research:

* Reference: UAB-PIF, 472-02-1/17, Universitat Autònoma de Barcelona.

* Period: 01/10/2017 – 30/09/2021.

7. Student: Sara Álvarez Cortés

Title: "Pyramidal Regression-based Coding for Remote Sensing Data" (PhD thesis)

Organism: Universitat Autònoma de Barcelona (UAB).

Date of Public Defense: June 27, 2019.

Qualification: Excellent Cum Laude

Dissertation Committee:

Dr. Enrico Magli Politecnico di Torino, Italy

Dr. Ian Blanes García Universitat Autònoma de Barcelona

Dr. Anton Bardera Reig Universitat de Girona

Granted Research:

* Reference: UAB-PIF, 472-01-3/15, Universitat Autònoma de Barcelona.

* Period: 01/10/2015 – 30/09/2018.

8. Student: Francisco Joaquín García Sobrino

Title: "Sonder spectral data compression" (PhD thesis)

Organism: Universitat Autònoma de Barcelona (UAB).

Date of Public Defense: July 20, 2018.

Qualification: Excellent Cum Laude

Dissertation Committee:

Dr. Victor Francisco Sánchez Silva University of Warwick, Great Britain

Dr. Alaitz Zabala Torres Universitat Autònoma de Barcelona

Dr. Vicente González Ruiz Universidad de Almería

Granted Research:

* Reference: UAB-PIF, 472-01-3/13, Universitat Autònoma de Barcelona.

* Period: 01/10/2013 – 20/07/2018.

9. Student: Naoufal Amrani

Title: “Spectral Decorrelation for Coding Remote Sensing Data” (PhD thesis)

Organism: Universitat Autònoma de Barcelona (UAB).

Date of Public Defense: February 6, 2017.

Qualification: Excellent Cum Laude

Dissertation Committee:

Dr. Enrico Magli Politecnico di Torino, Italy

Dr. Ian Blanes García Universitat Autònoma de Barcelona

Dr. Jordi Portell i de Mora Universitat de Barcelona

Granted Research:

* Reference: UAB-PIF, 472-03-1/12, Universitat Autònoma de Barcelona.

* Period: 01/03/2013 – 28/02/2017.

10. Student: ZhongWei Xu

Title: “Medical image segmentation for improved interactive coding” (PhD thesis)

Organism: Universitat Autònoma de Barcelona (UAB).

Co-supervisor: Joan Bartrina Rapesta, UAB

Date of Submission: July 23, 2015.

Qualification: Excellent Cum Laude

Dissertation Committee:

Dr. Vicente González Ruiz Universidad de Almería

Dr. Anton Bardera Reig Universitat de Girona

Dr. Ian Blanes García Universitat Autònoma de Barcelona

Granted Research: China Scholarship Council

* Period: 15/09/2011 – 14/09/2015.

11. Student: Miguel Hernández Cabronero

Title: “DNA Microarray image coding” (PhD thesis)

Organism: Universitat Autònoma de Barcelona (UAB).

Co-supervisor: Michael W. Marcellin, University of Arizona, USA

Date of Submission: June 19, 2015.

Qualification: Excellent Cum Laude

Dissertation Committee:

Prof. Manuel Pérez Malumbres Universidad Miguel Hernández

Dr. Antonio Neves University of Aveiro, Portugal

Dr. Cristina Fernández Córdoba Universitat Autònoma de Barcelona

Granted Research:

* Reference: AP2010-0172, FPU2011 (Training of University Lecturers Program - Ministerio de Ciencia e Innovación)

* Period: 01/12/2011 – 30/11/2015.

12. Student: José Lino Monteagudo Pereira

Title: “Implementation of Part 9 of JPEG2000” (PhD thesis)

Organism: Universitat Autònoma de Barcelona (UAB).

Co-supervisor: Francesc Aulí Llinás, UAB

Date of Submission: July 2013.

Qualification: Excellent Cum Laude

Dissertation Committee:

Prof. Michael Marcellin University of Arizona, USA

Dr. Victor Francisco Sánchez Silva University of Warwick, UK

Dr. Ian Blanes García Universitat Autònoma de Barcelona

Granted Research:

* Reference: UAB-I3, B-I3INT2006-08, Universitat Autònoma de Barcelona.

* Period: 16/10/2007 – 31/12/2008.

13. Student: Ian Blanes García

Title: “Divide-and-conquer spectral decorrelation for remote-sensing image coding” (PhD thesis)

Organism: Universitat Autònoma de Barcelona (UAB).

Date of Public Defense: December 2010.

Qualification: Excellent Cum Laude

Dissertation Committee:

Prof. Josep Rifà U. Autònoma de Barcelona, Spain

Prof. Michael Marcellin University of Arizona, USA

Dr. Enrico Magli Politecnico di Torino, Italy

Prof. Philippe Salembier U. Politecnica de Catalunya, Spain

Dr. Carole Thiebaut Centre National d’Etudes Spatiales, France

Granted Research:

* Reference: FPU2008 (Training of University Lecturers Program - Ministerio de Ciencia e Innovación)

* Period: 01/08/2008 – 31/12/2011.

14. Student: Jorge González Conejero

Title: “Coding techniques addressed to images containing no-data regions within JPEG2000 framework” (PhD thesis)

Organism: Universitat Autònoma de Barcelona (UAB).

Date of Public Defense: December 2009.

Qualification: Excellent Cum Laude

Dissertation Committee:

Prof. Josep Rifà U. Autònoma de Barcelona, Spain

Prof. Manuel Pérez Malumbres U. Miguel Hernández, Spain

Dr. David Megías Jiménez U. Oberta Catalunya, Spain

Prof. Rafael Molina Soriano U. Granada, Spain

Granted Research:

* Reference: UAB-PIF, 472-03-1/07, Universitat Autònoma de Barcelona.

* Period: 01/10/2007 – 30/09/2009.

15. Student: Fernando García Vílchez

Title: “Extending the CCSDS recommendation for image data compression for remote sensing scenarios” (PhD thesis)

Organism: Universitat Autònoma de Barcelona (UAB).

Date of Public Defense: December 2009.

Qualification: Excellent Cum Laude

Dissertation Committee:

2. Student: Xavier Fernández Mellado
Title: “Machine Learning for animal behaviour prediction”
(Master thesis)
Place and date of submission: Official Master in Artificial Intelligence. Universidad Internacional de La Rioja. July 2024.
- Course 2022-23
 3. Student: Ashwin Kumar Gururajan
Title: “Point Cloud Data Compression”
(Master thesis)
Place and date of submission: Official Master in Innovation and Research in Informatics, Advanced Computing. Technical University of Catalonia (UPC). June 2023.
- Course 2019-20
 4. Student: Lina Khoirunisya
Title: “Internet-of-Things Data Compression”
(Master thesis)
Place and date of submission: Official Master in Telecommunications Engineering. Universitat Autònoma de Barcelona (UAB). July 2020.
 5. Student: Saurabh Shrikant Kulkarni
Title: “Social Networks Data Compression”
(Master thesis)
Place and date of submission: Official Master in Telecommunications Engineering. Universitat Autònoma de Barcelona (UAB). September 2020.
 6. Student: Kundan Abhishek
Title: “Regression Wavelet Analysis”
(Master thesis)
Place and date of submission: Official Master in Computer Engineering. Universitat Autònoma de Barcelona (UAB). September 2020.
- Course 2018-19
 7. Student: Said Alizada
Title: “Deep Learning Image Compression for Hyperspectral Images”
(Master thesis)
Place and date of submission: Official Master in Computer Engineering. Universitat Autònoma de Barcelona (UAB). June 2019.
- Course 2017-18
 8. Student: Mohamed Yakoub Azzizi
Title: “End-to-End Optimized Image Compression on Hyperspectral Images”
(Master thesis)
Place and date of submission: Official Master in Computer Engineering. Universitat Autònoma de Barcelona (UAB). September 2018.

9. Student: Diego Ariel Aquino
 Title: "Inpainting based data compression"
 (Master thesis)
 Place and date of submission: Official Master in Computer Engineering. Universitat Autònoma de Barcelona (UAB).
 February 2018.
- Course 2013-14
 10. Student: Martin Briano
 Title: "Context Adaptive Arithmetic Coding"
 (Master thesis)
 Place and date of submission: Master High Performance Computing, Information Theory and Security. Universitat Autònoma de Barcelona (UAB). July 2014.
 11. Student: Ferran Badosa
 Title: "Biomedical image coding"
 (Master thesis)
 Place and date of submission: Master High Performance Computing, Information Theory and Security. Universitat Autònoma de Barcelona (UAB). July 2014.
 12. Student: Joan Rafols
 Title: "Google WebP image coding"
 (Master thesis)
 Place and date of submission: Master High Performance Computing, Information Theory and Security. Universitat Autònoma de Barcelona (UAB). July 2014.
 - Course 2012-13
 13. Student: Jente Beerten. ERASMUS student
 Title: "Wavelet-based near-lossless coding"
 (Master thesis)
 Place and date of submission: Master High Performance Computing, Information Theory and Security. Universitat Autònoma de Barcelona (UAB). July 2013.
 14. Student: Naoufal Amrani
 Title: "Image Feature Encoding"
 (Master thesis)
 Place and date of submission: Master High Performance Computing, Information Theory and Security. Universitat Autònoma de Barcelona (UAB). July 2013.
 15. Student: Cecilia Jaramillo
 Title: "Estándares de compresión de imágenes: JPEG2000, H264"
 (Master thesis)
 Place and date of submission: Master High Performance Computing, Information Theory and Security. Universitat Autònoma de Barcelona (UAB). July 2013.
 - Course 2011-12
 16. Student: Sergio Ortega
 Title: "Compresión de imágenes médicas"

(Master thesis)

Place and date of submission: Master High Performance Computing, Information Theory and Security. Universitat Autònoma de Barcelona (UAB). July 2012.

- Course 2010-11

17. Student: Miguel Hernández Cabronero

Title: “DNA Microarray Image Compression”

(Master thesis)

Place and date of submission: Master in Advanced Computer Science. Universitat Autònoma de Barcelona (UAB). July 2011.

18. Student: Andrea Carrillo Carrillo

Title: “Compresión de imágenes médicas hemodinámicas”

(Master thesis)

Place and date of submission: Master in Multimedia Technology. Universitat Autònoma de Barcelona (UAB). July 2011.

- Course 2007-08

19. Student: Ian Blanes García

Title: “3-dimensional coding through Principal Coding Analysis (PCA)”

(Master thesis)

Place and date of submission: Universitat Autònoma de Barcelona (UAB). July 2008.

- Course 2006-07

20. Student: Jorge Abraham Martínez Castañeda

Title: “3-dimensional coding in JPEG2000” (Master thesis)

Place and date of submission: Universitat Autònoma de Barcelona (UAB). July 2007.

- Course 2005-06

21. Student: Joan Bartrina Rapesta

Title: “Region of Interest Coding in JPEG2000” (Master thesis)

Place and date of submission: Universitat Autònoma de Barcelona (UAB). June 2006.

- Course 2004-05

22. Student: Jorge González Conejero

Title: “Compresión de imágenes con métodos basados en partición de conjuntos” (Master thesis)

Place and date of submission: Universitat Autònoma de Barcelona (UAB), April 2005.

- Course 2003-04

23. Student: Francesc Aulí Llinàs

Title: “L’estàndard de compressió d’imatges JPEG2000” (Master thesis)

Place and date of submission: Universitat Autònoma de Barcelona (UAB), September 2004.

24. Student: Fernando García Vílchez

Title: “Description and extension of Image Lossy Data Compression CCSDS-ILDC” (Master thesis)

Place and date of submission: Universitat Autònoma de Barcelona (UAB), September 2004.

3.3 Undergraduate Projects Supervision

- Course 2023-24
 1. Student: Joan Mata Parraga
Title: Image Compressibility
 2. Student: Antoni Reus Bergas
Title: Learning for Compression
- Course 2022-23
 3. Student: Jose Manuel Lamas Perez
Title: Quantisation avant la lettre
 4. Student: Xavier Lopez Lara
Title: Point Cloud Data Compression with FRL
 5. Student: Ismael Crespo
Title: Point Cloud Data Compression
 6. Student: Alejandro Abascal Jimenez
Title: Image Compressibility
 7. Student: Xavier Fernandez Mellado
Title: Learning for Compression
- Course 2021-22
 8. Student: Alexander David Chuquin Sanchez
Title: Image compression through deep learning
 9. Student: Pedro Garcia Suarez
Title: Analysis on conservation of structural elements in biological sequences
 10. Student: Daniel Holgado Chicharro
Title: Study of transcriptional regulation networks by expectation maximization
 11. Student: Jose Armenteros Garcia
Title: Learning for Compression
- Course 2020-21
 12. Student: Agusti Martin Conde
Title: Learning for Compression
 13. Student: Anna Folch Salvador
Title: Development Of A Viral Phylogeny System In Python
 14. Student: Guillem Adolf Mandel Guasch
Title: Analyzes of the conservation of structural elements in biological sequences
 15. Student: Venkateshwar Ragavan (Sastra University, India)
Title: Learning for Compression
 16. Student: Paula Fiorella Sarqui Altamirano
Title: Open data, good science and free software

- Course 2019-20
 17. Student: Marc Rodriguez Rodriguez
Title: On-the-fly Social Media Data Compression
 18. Student: Alex Velasco Cañete de Cardenas
Title: A genetic programming approach to motif discovery
- Course 2018-19
 19. Student: Ashwin Kumar Gururajan (Sastra University, India)
Title: Social Media Data Compression
- Course 2017-18
 20. Student: David Garcia Figueras
Title: Deep Learning Data Compression
- Course 2016-17
 21. Student: David Navarro Roncero
Title: Application for diseased people
 22. Student: Manel Julia Martinez Castro
Title: Virtualization of a physical framework
 23. Student: Juan Francisco Cano Ruiz
Title: Improvements of a wireless network: from bridging to routing
- Course 2015-16
 24. Student: Pedro Jose Cortina Mendez
Title: Remote Sensing data coding (Team project)
 25. Student: Angel Martin Some
Title: Remote Sensing data coding (Team project)
 26. Student: Rafael Cazorla Martínez
Title: Who is there in the photo ?
 27. Student: Eduardo Martínez Rojo
Title: Remote web browsing of DICOM images
 28. Student: Aaron Borrego Valcárcel
Title: Who is there in the photo ? (Team project)
 29. Student: Aitor Criado Vázquez
Title: Who is there in the photo ? (Team project)
- Course 2014-15
 30. Student: Ivan Pueyo Navarro
Title: DNA microarray image coding
 31. Student: Isaac Serrano Serra
Title: Smart WhatsApp

- Course 2006-07
 32. Student: Eduard Varga Lagunas
Title: Aplicativo Cliente-Servidor basado en J2EE
 33. Student: Ian Blanes García
Title: Compresión de imágenes en JPEG2000 con métodos de control de distorsión
 34. Student: Albert González Muelas
Title: Framework de desenvolupament J2EE
- Course 2005-06
 35. Student: Pep Reyes
Title: Análisis, diseño e implementación de una Intranet corporativa
 36. Student: Daniel Fernández Expósito
Title: Portal web para academia de diseño 3D
 37. Student: Germà Piqué García
Title: Optimización descodificación JPEG2000
 38. Student: Jonatan Llovich Pellise
Title: Wavelet Lower Trees.
 39. Student: Artur Dominguez Bernus
Title: Transformada Wavelet para contornos irregulares
- Course 2004-05
 40. Student: Salvador Alcàntara Cano
Title: Fast Discrete Wavelet Transform
 41. Student: Jose Antonio Jiménez Leal
Title: Expansión del CCSDS-Image Lossy Data Compression para n niveles de transformada
 42. Student: Daniel Rodrigo Simón
Title: SPECK
 43. Student: Alberto Ruíz Orellana
Title: Visualizador de imágenes comprimidas
 44. Student: Ivan Molera Gómez
Title: Aplicación Secretaría. Gestor expedientes
Project in agreement with Sant Fost de Campsentelles City Council
 45. Student: Xavier Serra Ramos
Title: Aplicación Secretaría. Intranet corporativa
Project in agreement with Sant Fost de Campsentelles City Council
- Course 2003-04
 46. Student: Enric Ventura Palacios
Title: Aplicativo multimedia Escola Ginebró
Project in agreement with Escuela Ginebró

47. Student: Carles Brugué Rifà
 Title: Diseño comunicaciones Estabanell y Pahísa Asociados
 Project in agreement with company Estabanell y Pahísa Asociados
48. Alumna: María José Parra Rocha
 Title: Publicación en Web de la Cartografía
 Project in agreement with Sant Boi de Llobregat City Council
49. Alumna: Gemma López Vázquez
 Title: Estudio sobre la Criptografía e introducción a las PKI's
 Project in agreement with company Gedas Iberia S.A.
50. Student: Ivan Gil Torres
 Title: Compresión de imágenes hiperespectrales: cuantización y ordenación
- Course 2002-03
 - 51. Student: Daniel Sánchez Molinero
 Title: Embedded Encoding of Zero-tree Wavelet Coefficients
 - 52. Student: Jorge González Conejero
 Title: Index Coding
 - 53. Alumna: Cristina García García
 Title: Codificación aritmética
 - 54. Student: Jordi Duran
 Title: Transductores
 - 55. Student: Carles Bellonch
 Title: Partner Sales Tool, herramienta de eMarketing para el sector asegurador
 Project in agreement with company WebInsurance Partners
 - 56. Student: Josep Maria Lajunta
 Title: Aplicación para la gestión del mantenimiento de maquinaria de producción
 Project in agreement with company Schlumberger
 - Course 2001-02
 - 57. Student: Oriol Galera Rosich
 Title: Implementación en JAVA de la cuantización vectorial mediante retículos.
 - 58. Student: David Villar Almagro
 Title: Códigos y particiones 1-perfectas de longitud 15.
 - 59. Student: Eduard Godas Leal
 Title: Simulación de un ordenador cuántico: Algoritmo de Shor i Algoritmo de Grover.
 - 60. Student: Oriol Sala González
 Title: Sistema de autoaprendizaje basado en las tecnologías de la información.
 - Course 2000-01
 - 61. Alumna: Maria Bover Casanovas
 Title: Implementación de un Índice de Actividades Económicas.
 Project in agreement with company Camerdata S.A., Barcelona Commerce Chamber.

62. Student: Alberto Lara Rodríguez

Title: Implementación de una aplicación para gestionar el material informático.

Project in agreement with company Camerdata S.A., Barcelona Commerce Chamber.

63. Student: Juan Carlos Alvarez Alvarez

Title: Implementación de una aplicación para generar estadísticas de consumo de una Web.

Project in agreement with company Camerdata S.A., Barcelona Commerce Chamber.

64. Student: Jose Antonio Camacho Galdeano

Title: Desarrollo de una Web para el Consell Consultiu.

Project in agreement with Consell Consultiu de la Generalitat de Catalunya institution.

65. Student: Jordi Lemonche Ramos

Title: Desarrollo de una Web para la Biblioteca de la UCCD.

- Course 1999-00

66. Student: Ruth Ferrer Serrano

Title: Compresión de imágenes fijas por medio de retículos.

4 Research Activity

4.1 European Union

1. Position: Researcher UAB

Project: “Improvements to the 123.0-B-2 standard Low-Complexity Lossless and Near-Lossless Multispectral and Hyperspectral Image Compression”

Reference: Centre National d’Études Spatiales (CNES)

Period: May 2024 - December 2026.

Main researcher: Miguel Hernández-Cabronero

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 4

Participants: Miguel Hernández-Cabronero, Joan Bartrina-Rapesta, Ian Blanes, Joan Serra-Sagristà.

Amount granted: 59.973 Euros

2. Position: Main Researcher

Project: “Global Data Compression Contest, 2nd Edition”

Reference: Huawei Poland

Period: October 2022 - December 2023.

Main researcher: Joan Serra-Sagristà

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 3

Participants: Joan Bartrina-Rapesta, Miguel Hernández-Cabroner, Joan Serra-Sagristà.

Amount granted: 79.746,83 Euros

3. Position: Researcher UAB

Project: “Raw SAR Compression - Prototyping of the Recommended Standard”

Reference: Centre National d'Études Spatiales (CNES)

Period: October 2020 - October 2024.

Main researcher: Miguel Hernández-Cabronero

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 4

Participants: Miguel Hernández-Cabronero, Joan Bartrina-Rapesta, Ian Blanes, Joan Serra-Sagristà.

Amount granted: 69.185,63 Euros

4. Position: Main Researcher UAB School of Engineering

Project: "Co-designed Welfare Monitoring Platform for Pig and Dairy Cattle (CLEARFARM)"

Reference: European Commission. H2020-SFS-2019-1 862919

Period: October 2019 - March 2024.

Project Responsible: Xavier Manteca, Universitat Autònoma Barcelona

Number of participating researchers: 2 (Universitat Autònoma Barcelona, School of Engineering)

Contact point UAB School of Engineering: Joan Serra-Sagristà

Participants UAB: Joan Serra-Sagristà, Joan Bartrina-Rapesta.

Coordinated Project with Universitat Autònoma de Barcelona, Fundacio Privada Parc De Recerca Uab, Syntesa Partners And Associates Sl, Connecterra Bv, Skov As Glyngore, Cattle Watch Ltd, Eshuis Bv, Wageningen University, Universita Degli Studi Di Milano, Aarhus Universitet, Universidad De Murcia, Luonnonvarakeskus, Elpozo Alimentacion Sa, Cefu, Sa, Hameenlinnan Osuusmeijeri, Koivuniemen Maatila Oy, Tikan Maatila Oy, Sociedad Cooperativa Andaluza Ganadera Del Valle De Los Pedroches, Herd-Itt Ltd.

Amount granted: 6.684.368,69 euros

5. Position: Researcher UAB

Project: "Contribution to the Green Book for CCSDS 124.0-B-1"

Reference: European Space Agency (ESA) PO 5001034881

Period: July 2022 - December 2022.

Main researcher: Miguel Hernández-Cabronero

Number of participating researchers: 4

Participants: Miguel Hernández-Cabronero, Joan Bartrina-Rapesta, Ian Blanes, Joan Serra-Sagristà.

Amount granted: 19.992,60 Euros

6. Position: Researcher UAB

Project: "Lossless/lossy multispectral & hyperspectral compression IP core"

Reference: European Space Agency (ESA) Contract No. 4000136723/22/NL/CRS

Partners: University of Las Palmas de Gran Canaria (main contractor), Thales Alenia Space Spain, National and Kapodistrian University of Athens, Universitat Autònoma de Barcelona

Period: March 2022 - March 2024.

Main researcher: Ian Blanes, Joan Bartrina-Rapesta

Number of participating researchers: 4

Participants: Ian Blanes, Joan Bartrina-Rapesta, Miguel Hernández-Cabronero, Joan Serra-Sagristà.

Amount granted: 20.000 Euros

7. Position: Researcher UAB

Project: "WhiteDwarf 2.0 Maintenance of Compression Implementations"

Reference: European Space Agency (ESA)

Period: January 2021 - December 2021.

Main researcher: Miguel Hernández-Cabronero, Ian Blanes

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 3

Participants: Miguel Hernández-Cabronero, Ian Blanes, Joan Serra-Sagristà.

Amount granted: 34.993 Euros

8. Position: Researcher UAB

Project: “Robust Compression of Fixed Length Housekeeping Data - Prototyping of the Recommended Standard Complementary activities”

Reference: Centre National d’Études Spatiales (CNES)

Period: February 2020 - September 2022.

Main researcher: Miguel Hernández-Cabronero, Joan Serra-Sagristà

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 3

Participants: Miguel Hernández-Cabronero, Ian Blanes, Joan Serra-Sagristà.

Amount granted: 41.328,60 Euros

9. Position: Researcher UAB

Project: “Robust Compression of Fixed Length Housekeeping Data”

Reference: Centre National d’Études Spatiales (CNES)

Period: October 2019 - June 2020.

Main researcher: Miguel Hernández-Cabronero, Joan Serra-Sagristà

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 3

Participants: Miguel Hernández-Cabronero, Ian Blanes, Joan Serra-Sagristà.

Amount granted: 21.455,25 Euros

10. Position: Researcher UAB

Project: “Low-Complexity Near-Lossless Multispectral & Hyperspectral Data Compression”

Reference: Centre National d’Études Spatiales (CNES)

Period: January 2018 - December 2019.

Main researcher: Ian Blanes, Joan Serra-Sagristà

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 2

Participants: Ian Blanes, Joan Serra-Sagristà.

Amount granted: 73.488 Euros

11. Position: Main Researcher UAB

Project: “High-Speed Integrated Satellite Data Systems For Leading EU IndustrY (Hi-FLY / Hi-SIDE)”

Reference: European Commission. H2020-COMPET-2017: COMPET-3 Hi-FLY / Hi-SIDE 776151

Period: January 2018 - June 2021.

Project Responsible: Airbus Defence and Space GMBH

Number of participating researchers: 2 (Universitat Autònoma Barcelona)

Contact point UAB: Joan Serra-Sagristà

Participants UAB: Joan Serra-Sagristà, Ian Blanes.

Coordinated Project with Airbus Defence and Space GMBH, Airbus Defence and Space SAS, Tesat-Spacecom GMBH & CO.KG, Deutsches Zentrum für Luft und Raumfahrt EV, Star-Dundee Limited, University of Dundee, Integrated Systems Development S.A., Kongsberg Spacetec AS, Erzia Technologies SL, Ethniko Kai Kapostriako Panepistimio Athinon, Modues Research and Innovation Limited, Universitat Autònoma de Barcelona
Amount granted: 6.997.016,25 euros

12. Position: Researcher UAB

Project: "Writing of the books for the standard CCSDS-122.1"
Reference: Centre National d'Études Spatiales (CNES)
Period: January 2016 - December 2017.
Main researcher: Ian Blanes, Joan Serra-Sagrà
Project Responsible: Joan Serra-Sagrà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Ian Blanes, Joan Serra-Sagrà.
Amount granted: 61.533 Euros

13. Position: Researcher UAB

Project: "Storage, access and transmission of whole-slide images for telepathology applications"
Reference: EP/L02764X/1 - Engineering and Physical Sciences Research Council (EPSRC), UK
Period: October 2014 - October 2016.
Main researcher: Victor Francisco Sánchez Silva (University of Warwick, UK)
Project Responsible: Joan Serra-Sagrà (Universitat Autònoma Barcelona)
Number of participating researchers: 1
Participants: Joan Serra-Sagrà.
Amount granted: 97.702 Sterling pounds

14. Position: Researcher UAB

Project: "Multicomponent compression algorithm based on CCSDS 122.0 standard"
Reference: Centre National d'Études Spatiales (CNES)
Period: January 2014 - December 2015.
Main researcher: Ian Blanes, Joan Serra-Sagrà
Project Responsible: Joan Serra-Sagrà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Ian Blanes, Joan Serra-Sagrà.
Amount granted: 42.000 Euros

15. Position: Researcher UAB

Project: "Multicomponent compression algorithm based on CCSDS 122.0 standard"
Reference: Centre National d'Études Spatiales (CNES)
Period: January 2013 - December 2013.
Main researcher: Ian Blanes, Joan Serra-Sagrà
Project Responsible: Joan Serra-Sagrà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Ian Blanes, Joan Serra-Sagrà.
Amount granted: 40.000 Euros

16. Position: Researcher UAB
Project: "Multicomponent compression algorithm based on CCSDS 122.0 standard"
Reference: Centre National d'Études Spatiales (CNES)
Period: January 2012 - December 2012.
Main researcher: Ian Blanes, Joan Serra-Sagristà
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Ian Blanes, Joan Serra-Sagristà.
Amount granted: 45.000 Euros
17. Position: Researcher UAB
Project: "Multicomponent compression algorithm based on CCSDS 122.0 standard"
Reference: Centre National d'Études Spatiales (CNES)
Period: September 2011 - December 2011.
Main researcher: Ian Blanes, Joan Serra-Sagristà
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Ian Blanes, Joan Serra-Sagristà.
Amount granted: 20.000 Euros
18. Position: Main Researcher and Coordinator
Project: "Multidimensional Image Coding. Applications to Remote Sensing and Telemedicine (MIC-RS-TM)"
Reference: European Union Framework Program VII, People Marie Curie Actions, International Incoming Fellowships (IIF), FP7-PEOPLE-2009-IIF, FP7-250420.
Period: July 2010 - December 2011.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Joan Serra-Sagristà, Michael Wesley Marcellin (University of Arizona, USA).
Amount granted: 155.390,5 Euros
19. Position: Main Researcher and Coordinator
Project: "Research Exchange in Image Coding and Communications for Global Emergency Management (REX-ICC4GEM)"
Reference: European Union Framework Program VII, People Marie Curie Actions, Industry-Academia Partnerships and Pathways (IAPP), FP7-PEOPLE-2009-IAPP, FP7-251283.
Period: February 2010 - January 2012.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 5 (UAB)
Participants UAB: Joan Serra-Sagristà, Joan Bartrina-Rapesta, Alaitz Zabala Torres, María Angeles Vázquez Castro, Jiang Lei.
Requested amount: 309.056,42 Euros
Status: Submitted (July 27, 2009). Scientific Evaluation above threshold (November 20, 2009). Status: C – Not recommended for funding (December 21, 2009).
20. Position: Main Researcher UAB
Project: "GMES and Earth Observation combined with Position based Image and sensor Communications Technology for Universal Rescue, Emergency and Surveillance (GEO-PICTURES)"

Reference: European Union Framework Program VII, Space Project FP7- 242390.

Period: March 2010 - April 2012.

Project Responsible: Harald Skinnemoen (AnsuR Technologies, Norway)

Number of participating researchers: 9 (Universitat Autònoma Barcelona)

Contact point UAB: Joan Serra-Sagristà

Participants UAB: Joan Serra-Sagristà, Francesc Aulí Llinàs, Joan Bartrina, Xavier Pons Fernández, Joan Masó Pau, Alaitz Zabala Torres, María Angeles Vázquez Castro, David Pradas Fernández, Joan Enric Barceló Lladó.

Coordinated Project with enterprise AnsuR Technologies (Norway), United Nations (UNOSAT-UNITAR, based in Geneva, Switzerland), Autonomous University of Barcelona (UAB, Spain), Kongsberg Satellite Services (Norway), Johanner EU Civil Protection (Germany), State University of Amazonas (Brasil), Secretary of Science and Technology of the State of Amazonas (Brasil), Disaster Management Advice & Training (DMAT Consulting e.U., Austria), ASSOCIACAO BRASILEIRA DE TELECOMUNICACOES.

Amount granted: 2.385.871,4 euros; 269.800 euros (UAB)

21. Position: Researcher

Project: “iTRUST: Working Group on Trust Management in Dynamic Open Systems.”

Reference: IST-2001-34910, UE – European Commission.

Period: August 2002 - August 2005.

Project Responsible: Sergi Robles, Joan Borrell (Universitat Autònoma Barcelona)

Number of participating researchers: 5 (UAB)

Participants: S.Robles, J.Borrell, G.Navarro, J.Rifà and J.Serra-Sagristà.

Amount granted: 20.000 euros

22. Position: Researcher

Project: “Coding System for still and motion images for low capacity transmission environments”.

Reference: German Federal Ministry of Education, Science and Technology Ref 01 M 3021 A/4 and Siemens AG, Munich.

Period: 1997 - 1999.

Project Responsible: Joachim M. Buhmann (U. Bonn, Alemania)

Number of participating researchers: 4 (U.Bonn)

Participants: J.M.Buhmann, H.Klock, A.Polzer, J.Serra-Sagristà.

23. Position: Main Researcher

Project: “Research stay at the Rheinische Friedrich-Wilhelms Universität in Bonn (Germany)”, with the Computer Vision and Pattern Recognition Group, under the supervision of Professor J.M.Buhmann.

Reference: Grant of the savings-bank “Caixa d’Estalvis i Pensions de Barcelona” and the Deutscher Akademischer Austausch Dienst (German Academic Exchange Service) “DAAD”.

Period: October 1997 - December 1998.

Project Responsible: Joan Serra-Sagristà

Number of participating researchers: 1

Amount granted: 1.500.000 pts (9.015’18 euros)

24. Position: Researcher

Project: “Continuous Complexity, Neural Nets and Learning (NeuroCOLT)”

Reference: ESPRIT Basic Research Action: Working Group in Neural and Computational Learning. Contract No. 8556 (Commission of the European Communities).

Period: 1994-1996.

Project Responsible: John Shawe-Taylor (Royal Holloway University of London)

Number of participating researchers: > 20

Amount granted: > 20 Mpts (120.202'42 euros)

4.2 Spain

1. Position: Main Researcher

Project: "Development of research for the Analysis of animal behavior. Focus on animal welfare"

Reference: Neurogreen

Period: June 2024 - October 2024.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 4

Participants: Natàlia Blasco-Andreo, Xavier Fernández-Mellado, Pau Quintàs-Torra, Joan Serra-Sagristà.

Amount granted: 10.000 euros

2. Position: Researcher

Project: "Quality Assurance of: Lossless/lossy multispectral and hyperspectral compression IP core"

Reference: Universidad las Palmas de Gran Canaria. Invitation to Tender.

Period: July 2024 - September 2024.

Project Responsible: Joan Bartrina-Rapesta, Ian Blanes (Universitat Autònoma Barcelona)

Number of participating researchers: 4

Participants: Joan Bartrina-Rapesta, Ian Blanes, Miguel Hernández-Cabronero, Joan Serra-Sagristà.

Amount granted: 9.417,63 euros

3. Position: Main Researcher

Project: "COTS and Learning in Nanosatellite Data Compression"

Reference: PRE2022-101265, Training of University Lecturers Program, Ministerio de Ciencia e Innovación.

Period: May 2024 - April 2028.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 2

Participants: David Alegre-Alarza, Joan Serra-Sagristà.

Amount granted: 111.758 euros

4. Position: Main Researcher

Project: "COTS and Learning in Nanosatellite Data Compression."

Reference: PID2021-125258OB-I00, Ministerio de Ciencia e Innovación (Gobierno Español) and FEDER.

Period: 1 September 2022 - 31 August 2025.

Project Responsible: Joan Serra-Sagristà, Ian Blanes (Universitat Autònoma Barcelona)

Number of participating researchers: 18 (UAB, Dept. of Information and Communications Engineering)

Participants: D.Alegre-Alarza, F.Aulí, J.Bartrina-Rapesta, I.Blanes, N.Blasco-Andreo, K. Chow, M.C.deToro-Valdivia, X.Fernández-Mellado, A.K.Gururajan, M.Hernández-Cabronero, E.Jara-Lorente, A.Llabrés-Brustenga, O.Maireles-González, M.W.Marcellin (U.Arizona), M. Martínez (Karlsruhe IT), S.Mijares-Verdú, P.Quintàs-Torra, R.Ribas-Nicolau, V.Sánchez-Silva (U.Warwick), J.Serra-Sagristà, D. Tzamarias.

Project in collaboration with Signal Processing and Coding Laboratory, University of Arizona, USA; Department of Computer Science, University of Warwick, UK; Karlsruhe Institute of Technology, DE.

Amount granted: 212.839 Euros

5. Position: Main Researcher
 Project: "Manual and Automatic Annotation Tool"
 Reference: Satellogic Solutions SL
 Period: July 2021 - December 2022.
 Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
 Number of participating researchers: 5
 Participants: Natàlia Blasco-Andreo, Ashwin Kumar Gururajan, Ester Jara-Lorente, Artur Llabrés-Brustenga, Miguel Hernández-Cabronero, Joan Serra-Sagristà.
 Amount granted: 31.460 euros

6. Position: Main Researcher
 Project: "Data Compression for Constellations of Satellites in the NewSpace era"
 Reference: PRE2019-088824, Training of University Lecturers Program, Ministerio de Ciencia e Innovación.
 Period: January 2021 - December 2024 (resignation tendered in July 2024).
 Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
 Number of participating researchers: 2
 Participants: Sebastià Mijares-Verdú, Joan Serra-Sagristà.
 Amount granted: 98.250 euros

7. Position: Main Researcher
 Project: "Framework para la evaluación de la calidad de imágenes para segmentación y clasificación con algoritmos de deep learning"
 Reference: RTC2019-007434-7, Ministerio de Ciencia, Innovación y Universidades (Gobierno Español) and FEDER.
 Period: 1 July 2020 - 31 December 2022.
 Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
 Number of participating researchers: 5 (UAB, Dept. of Information and Communications Engineering)
 Participants: Natàlia Blasco-Andreo, Ashwin Kumar Gururajan, Ester Jara-Lorente, Artur Llabrés-Brustenga, Miguel Hernández-Cabronero, Joan Serra-Sagristà.
 Project in collaboration with Satellogic Solutions SL; Fundació EURECAT, Aset Consultoria
 Amount granted: 607.552 Euros

8. Position: Main Researcher
 Project: "Programa Estatal de Promoción del Talento y su Empleabilidad en I+D+i. Subprograma Estatal de Incorporación"
 Reference: Program Juan de la Cierva - Incorporación, Ministerio de Ciencia, Innovación y Universidades
 Thematic Area: Information and Communication Technologies
 Period: April 2020 - April 2023. Resignation tendered in November 2019.
 Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
 Number of participating researchers: 2
 Participants: Miguel Hernández-Cabronero, Joan Serra-Sagristà.
 Amount granted: 98.000 euros

9. Position: Main Researcher
 Project: "Data Compression for Constellations of Satellites in the NewSpace era (DCCSat)."
 Reference: RTI2018-095287-B-I00, Ministerio de Ciencia, Innovación y Universidades (Gobierno Español) and FEDER.
 Period: 1 January 2019 - 31 December 2021.

Project Responsible: Joan Serra-Sagristà, J. Bartrina-Rapesta (Universitat Autònoma Barcelona)

Number of participating researchers: 13 (UAB, Dept. of Information and Communications Engineering)

Participants: S.Álvarez-Cortés, F.Aulí, J.Bartrina-Rapesta, I.Blanes, C. de Cea, K. Chow, F.J.García-Sobrino, M.Hernández-Cabronero, M.W.Marcellin (U.Arizona), M. Martínez (Karlsruhe IT), V.Sánchez-Silva (U.Warwick), J.Serra-Sagristà, D. Tzamarias.

Project in collaboration with Signal Processing and Coding Laboratory, University of Arizona, USA; Department of Computer Science, University of Warwick, UK; Karlsruhe Institute of Technology, DE.

Amount granted: 141.933 Euros

10. Position: Main Researcher

Project: “Compressed Data Structures”

Reference: Training of University Lecturers Program, Ministerio de Economía, Industria y Competitividad, BES-C-2016-0071 / BES-2016-078369.

Period: October 2017 - September 2021.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 3

Participants: Hing Fai Kevin Chow, Ian Blanes, Joan Serra-Sagristà.

Amount granted: 92.750 euros

11. Position: Main Researcher

Project: “Image Coding for Earth Observation Satellites (ICEOS).”

Reference: TIN2015-71126-R, Ministerio de Economía y Competitividad (Gobierno Español) and FEDER.

Period: 1 January 2016 - 31 December 2018.

Project Responsible: Joan Serra-Sagristà, Francesc Aulí-Llinàs (Universitat Autònoma Barcelona)

Number of participating researchers: 8 (UAB, Dept. of Information and Communications Engineering)

Participants: S.Álvarez-Cortés, N.Amrani, F.Aulí, J.Bartrina, I.Blanes, P.Enfedaque-Montes, M.Hernández-Cabronero, F.J.García-Sobrino, M.W.Marcellin, V.Sánchez-Silva, J.Serra-Sagristà.

Coordinated Project with Signal Processing and Coding Laboratory, University of Arizona, USA; Department of Computer Science, University of Warwick, UK; and in collaboration with entities Canadian Space Agency (CSA); Centre National d’Etudes Spatiales (CNES), Toulouse, France; THALES Services.

Amount granted : 98.615 Euros

12. Position: Main Researcher

Project: “Learning Image Features To Encode Visual Information (LIFE-VISION).”

Reference: TIN2012-38102-C03-00, Ministerio de Economía y Competitividad (Gobierno Español) and FEDER.

Period: 1 January 2013 - 31 December 2015.

Coordinator: Gustavo Camps-Valls (Universitat de València)

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 12 (UAB, Dept. of Information and Communications Engineering)

Participants: F.Aulí, J.Bartrina, I.Blanes, L.Jiménez, M.Hernández, Z.Xu, L.Donosó, J. Fernández, M.García-Bach, M.W.Marcellin, C.Thiebaut, J.Serra-Sagristà.

Coordinated Project with Universitat de València (Spain), Digital Medical Imaging Center of the UDIAT Diagnosis Services at Parc Taulí Health Corporation (Sabadell, Spain), Mutua Terrassa Health Foundation (Terrassa, Spain), and in collaboration with entities Signal Processing and Coding Laboratory, University of Arizona, USA; Centre National d’Etudes Spatiales (CNES), Toulouse, France; and European Organisation for the Exploitation of Meteorological Satellites.

Amount granted	TIN2012-38102-C03-01	104.481,00 Euros
	TIN2012-38102-C03-03	86.603,40 Euros
	Total	191.084,40 Euros

13. Position: Main Researcher

Project: “DNA microarray image coding”

Reference: AP2010-0172, Training of University Lecturers Program, Ministerio de Ciencia e Innovación, AP2010-0172.

Period: December 2011 - November 2015.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 2

Participants: Miguel Hernández Cabronero, Joan Serra-Sagristà.

Amount granted: 60.252 euros

14. Position: Researcher

Project: “Red Temática en Codificación y Transmisión de Contenidos Multimedia”

Reference: TEC2010-11776-E Acciones Complementarias PN I+D+i 2008-11, Ministerio de Ciencia e Innovación (Gobierno Español) and FEDER.

Period: July 2011 - July 2012.

Project Responsible: Otoniel Mario Lopez Granado (Universidad Miguel Hernández de Elche)

Number of participating researchers: 19

Coordinated Project with:

Jesús Bescós Cano y José María Martínez Sánchez, Video Processing & Understanding Lab, Universidad Autónoma de Madrid; Inmaculada García Fernández and Vicente González Ruiz, Departamento de Arquitectura y Tecnología de Computadores, Universidad de Almería; Fernando Díaz de María, Grupo de Procesado Multimedia, Universidad Carlos III; Pedro Ángel Cuenca Castillo, Departamento Sistemas Informáticos, Universidad de Castilla-La Mancha; Manuel Prieto Matias, Grupo de Arquitectura y Tecnología de Computadores, Universidad Complutense de Madrid; Adriana Dapena Janeiro, Departamento de Electrónica y Sistemas, Universidade de A Coruña; Richard Duro Fernandez, Departamento de Computación, Universidade da Coruña; Miguel Vega Lopez and Rafael Molina Soriano, Departamento de Ciencias de la Computación e Inteligencia Artificial, Universidad Granada; Nicolás Guil Mata, Departamento de Arquitectura de Computadores, Universidad de Málaga; Manuel Pérez Malumbres, Departamento de Física y Arquitectura de Computadores, Universidad Miguel Hernández; Antonio Gómez Skarmeta, Departamento de Ingeniería de la Información y las Comunicaciones, Universidad de Murcia; Manuel Graña Romay, Departamento de Ciencias de la Computación e Inteligencia Artificial, Universidad País Vasco (EHU); Joan Serra-Sagristà, Departamento de Ingeniería de la Información y de las Comunicaciones, Universitat Autònoma de Barcelona; David Megías, Internet Interdisciplinary Institute, Universitat Oberta de Catalunya; Philippe Salembier Clairon, Departamento de Teoría del Señal y las Comunicaciones, Universitat Politècnica de Catalunya; Antonio Albiol Colomer, Departamento de Comunicaciones, Universitat Politècnica de Catalunya; Pietro Manzoni, Departamento de Ingeniería de Sistemas y Computadores, Universitat Politècnica de València; Mariano Luis Alcañiz Raya, Centro de Investigación e Innovación en Bioingeniería, Universitat Politècnica de Valencia; Julian Fernandez Navajas, Grupo de Tecnologías de las Comunicaciones, Universidad de Zaragoza.

Amount granted: 12.000 euros

15. Position: Main Researcher

Project: “Coding techniques for distributed storage systems and systematic repair”

Reference: Training of University Lecturers Program, Ministerio de Ciencia e Innovación, AP2009-4729.

Period: December 2010 - November 2014.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 2
Participants: Bernat Gastón Brasó, Joan Serra-Sagristà.
Amount granted: 60.252 euros

16. Position: Departmental co-authorization

Project: Postdoctoral Grant “Ramon y Cajal”
Reference: Ministerio de Ciencia e Innovación (Spanish Government), RYC-2010-05671.
Period: November 2010 - October 2015.
Number of participating researchers: 1
Participants: Francesc Aulí-Llinàs.
Amount granted: 221.850 euros

17. Position: Main Researcher and Coordinator

Project: “Coding and Transmission of N-dimensional images through JPEG2000 standard”
Reference: Programa Nacional de Movilidad de Recursos Humanos de Investigación, Ministerio de Ciencia e Innovación, SAB2009-0004.
Period: August 2010 - July 2011. Resignation tendered in June 2010.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Joan Serra-Sagristà, Michael Wesley Marcellin (University of Arizona, USA).
Amount granted: 32.400 Euros

18. Position: Main Researcher and Coordinator

Project: “Scalable Compression and Interactive Transmission and Processing of Massive Images (SCAITOMI).”
Reference: TIN2009-14426-C02-00, Ministerio de Ciencia e Innovación (Gobierno Español) and FEDER.
Period: 1 January 2010 - 31 December 2012.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 9 (UAB, Dept. of Information and Communications Engineering)
Participants: F.Aulí, J.Bartrina, I.Blanes, L.Donosó, J. Fernández, M.W.Marcellin, J.Muñoz, C.Rúbies, J.Serra-Sagristà.
Coordinated Project with Dept. of Geography at UAB, Centre for Ecological Research and Forestry Applications (Catalonia), Digital Medical Imaging Center of the UDIAT Diagnosis Services at Parc Taulí Health Corporation (Sabadell, Spain), and in collaboration with entities Signal Processing and Coding Laboratory, University of Arizona, USA; AnsuR Technologies, Norway; Department of Health (Generalitat de Catalunya); European Topic Center on Land Use Spatial Information; Spanish National Institute of Geography; Catalan Meteorological Service; and Catalan Institute of Cartography.

Amount granted	TIN2009-14426-C02-01	113.014 Euros
	TIN2009-14426-C02-02	76.230 Euros
	Total	189.244 Euros

19. Position: Researcher

Project: “Red Temática en Codificación y Transmisión de Contenidos Multimedia”
Reference: TIN2009-05737-E/TIN Acciones Complementarias PN I+D+i 2008-11, Ministerio de Ciencia e Innovación (Gobierno Español) and FEDER.
Period: November 2009 - October 2010.
Project Responsible: Adriana Dapena Janeiro (Universidade A Coruña)
Number of participating researchers: 16
Coordinated Project with:

Jesús Bescós Cano y José María Martínez Sánchez, Video Processing & Understanding Lab, Universidad Autónoma de Madrid; Inmaculada García Fernández, Departamento de Arquitectura y Tecnología de Computadores, Universidad de Almería; Fernando Díaz de María, Grupo de Procesado Multimedia, Universidad Carlos III; Pedro Ángel Cuenca Castillo, Departamento Sistemas Informáticos, Universidad de Castilla-La Mancha; Adriana Dapena Janeiro, Departamento de Electrónica y Sistemas, Universidade de A Coruña; Richard Duro Fernandez, Departamento de Computación, Universidade da Coruña; Rafael Molina Soriano, Departamento de Ciencias de la Computación e Inteligencia Artificial, Universidad Granada; Nicolás Guil Mata, Departamento de Arquitectura de Computadores, Universidad de Málaga; Manuel Pérez Malumbres, Departamento de Física y Arquitectura de Computadores, Universidad Miguel Hernández; Antonio Gómez Skarmeta, Departamento de Ingeniería de la Información y las Comunicaciones, Universidad de Murcia; Manuel Graña Romay, Departamento de Ciencias de la Computación e Inteligencia Artificial, Universidad País Vasco (EHU); Joan Serra-Sagristà, Departamento de Ingeniería de la Información y de las Comunicaciones, Universitat Autònoma de Barcelona; David Megías, Internet Interdisciplinary Institute, Universitat Oberta de Catalunya; Philippe Salembier Clairon, Departamento de Teoría del Señal y las Comunicaciones, Universitat Politècnica de Catalunya; Pietro Manzoni, Departamento de Ingeniería de Sistemas y Computadores, Universitat Politècnica de València; Mariano Luis Alcañiz Raya, Centro de Investigación e Innovación en Bioingeniería, Universitat Politècnica de Valencia.

Amount granted: 10.000 euros

20. Position: Main Researcher

Project: “Interactive Coding of Images”

Reference: Intensification Program I3, UAB-BI3INT2006-08.

Period: October 2009 - July 2012.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 2

Participants: Juan Muñoz Gómez, Joan Serra-Sagristà.

Amount granted: 49.920 euros

21. Position: Main Researcher

Project: “Group on Interactive Coding of Images (UAB). European Activity”

Reference: TIN2009-08312-E. Acciones Complementarias PN I+D+i 2008-11, Ministerio de Ciencia e Innovación (Gobierno Español) and FEDER.

Period: August 2009 - August 2010.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 1

Participants: Joan Serra-Sagristà.

Amount granted: 6.000 Euros

22. Position: Main Researcher

Project: “High Resolution Image Coding”

Reference: Training of University Lecturers Program, Ministerio de Ciencia e Innovación, AP2007-01555.

Period: August 2008 - December 2011.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 2

Participants: Ian Blanes, Joan Serra-Sagristà.

Amount granted: 60.252 euros

23. Position: Main Researcher

Project: “Programa Nacional de Potenciación de Recursos Humanos”
Reference: Program Juan de la Cierva, Ministerio de Educación y Ciencia
Thematic Area: Computational Sciences and Computer Science Technology
Period: June 2008 - May 2011. Resignation tendered in May 2009.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Rosa Maria Figueras Ventura, Joan Serra-Sagristà.
Amount granted: 99.000 euros

24. Position: Main Researcher and Coordinator

Project: “Thematic Network in Coding and Transmission of Multimedia Contents”
Reference: TSI2007-30447-E Acciones Complementarias PN I+D+i 2004-07
Ministerio de Educación y Ciencia (Gobierno Español) and FEDER.
Period: 06 March 2008 - 05 March 2009.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 14
Coordinated Project with:

Inmaculada García, Departamento de Arquitectura y Tecnología de Computadores, Universidad de Almería; Pedro Ángel Cuenca Castillo, Departamento Sistemas Informáticos, Universidad de Castilla-La Mancha; Adriana Dapena Janeiro, Departamento de Electrónica y Sistemas, Universidade de A Coruña; Richard Duro Fernandez, Departamento de Computación, Universidade da Coruña; Rafael Molina Soriano, Departamento de Ciencias de la Computación e Inteligencia Artificial, Universidad Granada; Nicolás Guil Mata, Departamento de Arquitectura de Computadores, Universidad de Málaga; Manuel Pérez Malumbres, Departamento de Física y Arquitectura de Computadores, Universidad Miguel Hernández; Antonio Gómez Skarmeta, Departamento de Ingeniería de la Información y las Comunicaciones, Universidad de Murcia; Manuel Graña Romay, Departamento de Ciencias de la Computación e Inteligencia Artificial, Universidad País Vasco (EHU); Joan Serra-Sagristà, Departamento de Ingeniería de la Información y de las Comunicaciones, Universitat Autònoma de Barcelona; David Megías, Internet Interdisciplinary Institute, Universitat Oberta de Catalunya; Philippe Salembier Clairon, Departamento de Teoría del Señal y las Comunicaciones, Universitat Politècnica de Catalunya; Pietro Manzoni, Departamento de Ingeniería de Sistemas y Computadores, Universitat Politècnica de València; Mariano Luis Alcañiz Raya, Centro de Investigación e Innovación en Bioingeniería, Universitat Politècnica de Valencia.
Amount granted: 6.000 euros

25. Position: Main Researcher and Coordinator

Project: “Interactive Coding and Transmission of High Resolution Images. Applications to Remote Sensing, Geographic Information Systems, and Telemedicine”
Reference: TSI2006-14005-C02-01, Ministerio de Educación y Ciencia (Gobierno Español) and FEDER.
Period: October 2006 - September 2009.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 8 (UAB, Dept. of Information and Communications Engineering)
Participants: F.Aulí, J.Bartrina, M.Bras, C.Fernández, F.García, P.Guitart, J.González, J.Rifà, J.Serra-Sagristà.
Coordinated Project with Dept. of Geography at UAB, Centre for Ecological Research and Forestry Applications (Catalonia), Digital Medical Imaging Center of the UDIAT Diagnosis Services at Parc Taulí Health Corporation (Sabadell, Spain), and in collaboration with the small enterprises Alma IT Systems, Geodata Sistemas S.L., and with European Environment Agency (EEA), Spanish National Institute of Aerospace Techniques (INTA), Department of Environment (Generalitat de Catalunya), and Catalan Institute of Cartography.

Amount granted	TSI2006-14005-C02-01	159.841 Euros
	TSI2006-14005-C02-02	129.228 Euros
	Total	289.069 euros

26. Position: Main Researcher

Project: “Movilidad de profesorado”, Programa Oficial de Posgrado con Doctorado, Ingeniería

Reference: DCT2006-00192-P, Ministerio de Educación y Ciencia

Period: 2007-2008

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 3 (UAB)

Participants: J.Lladós, J.Rifà, J.Serra-Sagristà

Amount granted: 7.200 euros

27. Position: Main Researcher and Coordinator

Project: “Hyperspectral image coding through wavelet transform.

Applications to Remote Sensing, Geographic Information Systems.”

Reference: TIC2003-08604-C04-01, Ministerio de Ciencia y Tecnología (Gobierno Español) and FEDER.

Period: December 2003 - November 2006.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 11 (UAB, Dept. of Computer Science)

Participants: F.Auli, J.Borges, M.Bras, C.Fernandez, F.Garcia, J.Gonzalez, P.Guitart, J.Pujol, J.Rifa, J.Serra-Sagristà and M.Villanueva.

Coordinated Project with Dept. of Geography at UAB, Universitat Oberta de Catalunya, Centre for Ecological Research and Forestry Applications (Catalonia), and in collaboration with small enterprises Geodata Sistemas S.L., T-Systems ITC Services España S.A., Intelligent Software Components S.A., and with European Environment Agency (EEA), Spanish National Institute of Aero-spatial Techniques (INTA), Department of Environment (Generalitat de Catalunya), and Catalan Institute of Cartography.

Amount granted	TIC2003-08604-C04-01	156.760 Euros
	TIC2003-08604-C04-02	18.400 Euros
	TIC2003-08604-C04-03	38.640 Euros
	TIC2003-08604-C04-04	89.600 Euros
	Total	303.400 euros

28. Position: Researcher

Project: “ Development of processing techniques for remote sensing hyperspectral images: source and channel coding, pattern recognition, transmission, and Internet cooperation.”

Reference: CICYT TIC2000-0739-C04-01, Comisión Interministerial de Ciencia y Tecnología, Gobierno Español.

Period: December 2000 - December 2003.

Project Responsible: Josep Rifà (Universitat Autònoma Barcelona)

Number of participating researchers: 9 (UAB)

Participants: J.Rifà, J.Pujol, I.Ortuño, J.Borges, J.Serra, J.Minguillón, M.Villanueva, A.Puiggené. Coordinated Project with Universidad del País Vasco, Universidad de Extremadura en Cáceres, Universidad de A Coruña, and in collaboration with small enterprise Estudio Atlas S.A. and Institut Cartogràfic de Catalunya.

Amount granted	TIC2000-0739-C04-01	61.603'74 euros
	TIC2000-0739-C04-02	61.603'74 euros
	TIC2000-0739-C04-03	15.025'30 euros
	TIC2000-0739-C04-04	43.573'37 euros
	Total	181.806'15 euros

29. Position: Researcher

Project: “Desarrollo de dos aplicaciones de comercio-e seguras: votaciones B2G y subastas B2B.”

Reference: CICYT TIC2000-0232-P4-02, Comisión Interministerial de Ciencia y Tecnología, Gobierno Español.

Period: October 2001 - September 2003.

Project Responsible: Joan Borrell Viader (Universitat Autònoma Barcelona)

Number of participating researchers: 7 (UAB)

Participants: J.Borrell, J.Rifà, J.Serra-Sagristà, J.Pons, P.Guitart and S.Robles.

Project in collaboration with small enterprise iSOCO.

Amount granted: 183.068'29 euros

30. Position: Researcher

Project: “Continuous Complexity, Neural Nets and Learning”.

Reference: DGICYT UE95-0010.

Period: 1995-1996.

Project Responsible: Felipe Cucker (Universitat Pompeu Fabra)

Number of participating researchers: 4

Participants: Felipe Cucker, Carme Torras, Ricard Gavaldà, Joan Serra. Amount granted: 1.500.000 pts (9.015'18 euros)

4.3 Catalonia

1. Position: Main Researcher

Project: “Efficient transmission of multi- and hyperspectral images for Earth Observation. Machine learning-based coding techniques”

Reference: Institute of Space Studies of Catalonia (IEEC). NewSpace Strategy.

Period: May 2024 - April 2025.

Project Responsible: Joan Serra-Sagristà, Ian Blanes (Universitat Autònoma Barcelona)

Number of participating researchers: 12 (UAB)

Participants: D.Alegre-Alarza, J.Bartrina-Rapesta, I.Blanes, N.Blasco-Andreo, X.Fernández-Mellado, M.Hernández-Cabronero, O.Maireles-González, S.Mijares-Verdú, P.Quintàs-Torra, R.Ribas-Nicolau, J.Serra-Sagristà, J.Virgili-Mateu.

Amount granted: 95.000 euros

2. Position: Main Researcher

Project: “PhotSat”

Reference: Institute of Space Studies of Catalonia (IEEC). PhotSat.

Period: September 2023 - November 2025.

Project Responsible: Joan Serra-Sagristà, Joan Bartrina-Rapesta (Universitat Autònoma Barcelona)

Number of participating researchers: 6 (UAB)

Participants: J.Bartrina-Rapesta, X.Fernández-Mellado, M.Hernández-Cabronero, O.Maireles-González, P.Quintàs-Torra, J.Serra-Sagristà.

Amount granted: 155.000 euros

3. Position: Researcher
 Project: “Investigo”
 Reference: Institute of Space Studies of Catalonia (IEEC).
 Period: September 2023 - November 2025.
 Project Responsible: Joan Serra-Sagristà, Ian Blanes (Universitat Autònoma Barcelona)
 Number of participating researchers: 3 (UAB)
 Participants: P.Quintàs-Torra, I.Blanes, J.Serra-Sagristà.
 Amount granted: 66.217,84 euros

4. Position: Main Researcher
 Project: “Efficient transmission of multi- and hyperspectral images for Earth Observation. Machine learning-based coding techniques”
 Reference: Institute of Space Studies of Catalonia (IEEC). NewSpace Strategy.
 Period: May 2023 - April 2024.
 Project Responsible: Joan Serra-Sagristà, Ian Blanes (Universitat Autònoma Barcelona)
 Number of participating researchers: 14 (UAB)
 Participants: J.Bartrina-Rapesta, I.Blanes, A.Capella del Solar, S. Cantón-Simó, X.Fernández-Mellado, A.K.Gururajan, M.Hernández-Cabronero, O.Maireles-González, S.Mijares-Verdú, P.A.Peñañiel-Macias, R.Ribas-Nicolau, J.Serra-Sagristà, J.Virgili-Mateu.
 Amount granted: 60.000 euros

5. Position: Main Researcher
 Project: “Efficient transmission of multi- and hyperspectral images for Earth Observation. Machine learning-based coding techniques”
 Reference: Institute of Space Studies of Catalonia (IEEC). NewSpace Strategy.
 Period: May 2022 - April 2023.
 Project Responsible: Joan Serra-Sagristà, Ian Blanes (Universitat Autònoma Barcelona)
 Number of participating researchers: 9 (UAB)
 Participants: I.Blanes, A.Capella del Solar, S.Cantón-Simó, A.K.Gururajan, J.M.Lamas-Pérez, P.A.Peñañiel-Macias, R.Ribas-Nicolau, J.Serra-Sagristà, D. Tzamarias.
 Amount granted: 50.000 euros

6. Position: Researcher
 Project: “Consolidated Research Group.”
 Reference: 2021-SGR-643, Generalitat de Catalunya.
 Period: January 2022 - June 2025.
 Project Responsible: Mercè Villanueva Gay (Universitat Autònoma Barcelona)
 Number of participating researchers: 14 (UAB)
 Participants: F.Aulí, J.Bartrina, I.Blanes, J.Borges, C.Borrego, C.Fernandez, M.Hernández-Cabronero, J.Herrera, R.Martí, G.Navarro, J.Rifà, S.Robles, J.Serra-Sagristà, M.Villanueva.
 Amount granted: 40.000 euros

7. Position: Main Researcher
 Project: “3Cat-Gea Payload”
 Reference: Institute of Space Studies of Catalonia (IEEC). NewSpace Strategy..
 Period: April 2021 - April 2022.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 2

Participants: Joan Serra-Sagristà, Ian Blanes

Amount granted: 50.000 euros

8. Position: Main Researcher

Project: “Interactive Coding of Images”

Reference: 2020 FI SDUR 00583.

Period: October 2020 - September 2024 (resignation tendered in September 2020)

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 2

Participants: Alejandro Morais Tejerina, Joan Serra-Sagristà.

Amount granted: 76.000 euros

9. Position: Departmental authorisation

Project: Postdoctoral Grant “Beatriu de Pinós”

Reference: Agency for Administration of University and Research Grants (AGAUR), Generalitat de Catalunya, 2018 BP 00008.

Period: January 2020 - December 2022.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 1

Participants: Miguel Hernández-Cabronero.

Amount granted: 154.350 euros

10. Position: Main Researcher

Project: “Consolidated Research Group.”

Reference: 2017-SGR-463, Generalitat de Catalunya.

Period: January 2017 - December 2020.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 13 (UAB)

Participants: F.Aulí, J.Bartrina, I.Blanes, J.Borges, J.Borrell, C.Fernandez, J.Herrera, R.Martí, G.Navarro, J.Rifà, S.Robles, J.Serra-Sagristà, M.Villanueva.

Amount granted: 0 euros

11. Position: Researcher

Project: “Consolidated Research Group.”

Reference: 2014-SGR-691, Generalitat de Catalunya.

Period: January 2014 - April 2018.

Project Responsible: Josep Rifà Coma (Universitat Autònoma Barcelona)

Number of participating researchers: 14 (UAB)

Participants: F.Aulí, J.Bartrina, I.Blanes, J.Borges, J.Borrell, C.Fernandez, J.Herrera, R.Martí, G.Navarro, J.Pujol, J.Rifà, S.Robles, J.Serra-Sagristà, M.Villanueva.

Amount granted: 45.000 euros

12. Position: Main Researcher

Project: “Visiting Professor Grant. Michael W. Marcellin”

Reference: Generalitat de Catalunya. 2009 PIV 00074.
Period: September 2010 - May 2011. Resignation tendered in June 2010.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Michael W. Marcellin, Joan Serra-Sagristà.
Amount granted: 21.388 euros

13. Position: Researcher

Project: "Consolidated Research Group."
Reference: SGR2009-1224, Generalitat de Catalunya.
Period: October 2009 - April 2014.
Project Responsible: Josep Rifà Coma (Universitat Autònoma Barcelona)
Number of participating researchers: 15 (UAB)
Participants: F.Aulí, J.Bartrina, I.Blanes, J.Borges, J.Borrell, C.Fernandez, R.Martí, C.Martínez, J.Pernas, J.Pujol, J.Rifà, S.Robles, L.Ronquillo, J.Serra-Sagristà, M.Villanueva.
Amount granted: 49.920 euros

14. Position: Main Researcher

Project: "REX-ICC4GEM, Marie Curie Industry-Academia Partnerships Pathway"
Reference: 2009LID2-C-09, LiderEU, Generalitat de Catalunya
Period: August 2009 - August 2010.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 1
Participants: Joan Serra-Sagristà.
Amount granted: 2.580 Euros

15. Position: Departmental authorisation

Project: Postdoctoral Grant "Beatriu de Pinós"
Reference: Agency for Administration of University and Research Grants (AGAUR), Generalitat de Catalunya, 2008-BP-B-00010.
Period: October 2009 - September 2011.
Number of participating researchers: 1
Participants: Francesc Aulí-Llinàs.
Amount granted: 68.376 euros

16. Position: Main Researcher

Project: "High Resolution Image Coding"
Reference: Research personnel in training, Generalitat de Catalunya, 2008FI_473.
Period: January 2008 - December 2011. Resignation tendered in March 2008.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Ian Blanes, Joan Serra-Sagristà.
Amount granted: 52.152 euros

17. Position: Researcher

Project: "Infrastructure Equipment for a Cluster."

Reference: 2005PEIR0050/26 (AGAUR. Generalitat de Catalunya.)

Period: December 2005 - December 2006.

Project Responsible: Josep Rifà Coma (Universitat Autònoma Barcelona)

Number of participating researchers: 19 (UAB)

Amount granted: 39.986'36 euros

18. Position: Researcher

Project: "Consolidated Research Group."

Reference: SGR2005-00319, Generalitat de Catalunya.

Period: October 2005 - October 2009.

Project Responsible: Josep Rifà Coma (Universitat Autònoma Barcelona)

Number of participating researchers: 20 (UAB)

Participants: F.Aulí, J.Bartrina, J.M.Basart, J.Borges, J.Borrell, M.Bras, J.Cucurull, C.Fernandez, J.García, F.García, C.Garrigues, P.Guitart, G.Navarro, J.A.Ortega, J.Pons, J.Pujol, J.Rifà, S.Robles, J.Serra-Sagristà, M.Villanueva.

Amount granted: - euros

19. Position: Researcher

Project: "Thematic Network of Security, Coding, and Transmission of Information."

Reference: 1999XT 00016, 2001XT-0016, 2003/XT/00074, Generalitat Catalunya.

Period: January 1999 - December 2005.

Project Responsible: Josep Rifà Coma (Universitat Autònoma Barcelona)

Number of participating researchers: 6 (UAB)

Participants: J.Borges, J.Borrell, J.Pujol, J.Rifà, J.Serra-Sagristà and M.Villanueva.

Amount granted: 27.000 euros

20. Position: Researcher

Project: "Wireless Network and massive storage device."

Reference: PIR-210-2002 (DURSI. Generalitat de Catalunya.)

Period: January 2003 - December 2003.

Project Responsible: Josep Rifà Coma (Universitat Autònoma Barcelona)

Number of participating researchers: 17 (UAB)

Participants: J.Rifà, J.Pujol, J.Serra-Sagristà, S.Robles, M.Villanueva, C.Fernandez, F.Aulí, J.Borges, F.García, J.Borrell, JM.Basart, J.Pons, I.Ortuño, J.García, G.Navarro, J.Ametller and J.Mir.

Amount granted: 33.175'16 euros

21. Position: Researcher

Project: "Consolidated Research Group."

Reference: 2001SGR219, Generalitat de Catalunya.

Period: January 2002 - December 2004.

Project Responsible: Josep Rifà Coma (Universitat Autònoma Barcelona)

Number of participating researchers: 11 (UAB)

Participants: J.Rifà, J.Pujol, J.Borrell, J.Borges, J.Serra-Sagristà, M.Villanueva, S.Robles, J.Pons, J.Minguillón, C.Fernández and G.Navarro.

Amount granted: 37.262'75 euros

22. Position: Researcher

Project: "Water quality control through hyperspectral imagery".

Reference: Comunitat de Treball dels Pirineus ITT CTP 99/12, Generalitat de Catalunya.

Period: January 2000 - December 2001.

Project Responsible: Jaume Pujol (Universitat Autònoma Barcelona)

Number of participating researchers: 5 (UAB)

Participants: Jaume Pujol, Inma Ortuño, Joan Serra, Julià Minguillón, Pere Guitart. Coordinated Project with Universidad del País Vasco, CERT/ONERA (France) and in collaboration with small enterprise Estudio Atlas S.A.

Amount granted: 2.500.000 pts (15.025'30 euros)

23. Position: Researcher

Project: "Applications of neural networks to hyperspectral image coding".

Reference: Comunitat de Treball dels Pirineus 5, Generalitat de Catalunya.

Period: January 1998 - December 1999.

Project Responsible: Inma Ortuño (Universitat Autònoma Barcelona)

Number of participating researchers: 4 (UAB)

Participants: Inma Ortuño, Jaume Pujol, Joan Serra, Julià Minguillón. Coordinated Project with Universidad del País Vasco, CERT/ONERA (France) and in collaboration with small enterprise Estudio Atlas S.A.

Amount granted: 2.000.000 pts (12.020'24 euros)

4.4 America

1. Position: Main Researcher

Project: "Visiting Student Grant. Brandon Corona Ortega"

Reference: Universidad Nacional Autónoma de México.

Period: January 2020 - February 2020.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 2

Participants: Brandon Corona Ortega, Joan Serra-Sagristà.

Amount granted: All expenses of the visiting student were covered.

2. Position: Main Researcher

Project: "Visiting Student Grant. Angel Yexuani Cruz Sanchez"

Reference: Universidad Nacional Autónoma de México.

Period: December 2019 - January 2020.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 2

Participants: Angel Yexuani Cruz Sanchez, Joan Serra-Sagristà.

Amount granted: All expenses of the visiting student were covered.

3. Position: Main Researcher

Project: "Visiting Professor Grant. Victor Francisco Sánchez Silva"

Reference: Natural Sciences and Engineering Research Council of Canada (NSERC)

Period: February 2012 - January 2013.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)

Number of participating researchers: 2

Participants: Victor Francisco Sánchez Silva, Joan Serra-Sagristà.

Amount granted: All expenses of the visiting professor were covered.

4. Position: Main Researcher
Project: “Visiting Professor Grant. James E. Fowler”
Reference: Fulbright Commission. Award Code: 1343
Period: September 2011 - January 2012. Resignation tendered in April 2011.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: James E. Fowler, Joan Serra-Sagristà.
Amount granted: 22.110 euros
5. Position: Main Researcher
Project: “Visiting Professor Grant. Michael W. Marcellin”
Reference: Fulbright Commission.
Period: September 2010 - January 2011. Resignation tendered in June 2010.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Michael W. Marcellin, Joan Serra-Sagristà.
Amount granted: 22.110 euros

4.5 Other Funding Bodies

4.5.1 Algeria

1. Position: Main Researcher
Project: “Deep Learning Data Compression”
Reference: Ibn khaldoun University, TIARET, Algeria
Period: February - March 2019.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Dr. Kaddar Bachir, Joan Serra-Sagristà.
Amount granted: 5.000 euros
2. Position: Main Researcher
Project: “Deep Learning Data Compression”
Reference: Ibn khaldoun University, TIARET, Algeria
Period: February - March 2018.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Dr. Kaddar Bachir, Joan Serra-Sagristà.
Amount granted: 5.000 euros

4.5.2 Iran

1. Position: Main Researcher
Project: “Medical Image Coding”
Reference: Isfahan University of Technology, Iran
Period: July 2015.

Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Nader Karimi, Joan Serra-Sagristà.
Amount granted: 5.000 euros

4.5.3 China

1. Position: Main Researcher
Project: “Interactive Coding of Images”
Reference: China Scholarship Council
Period: September 2024 - September 2028.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Zuoxin Xi, Joan Serra-Sagristà.
Amount granted: 76.000 euros
2. Position: Main Researcher
Project: “Interactive Coding of Images”
Reference: China Scholarship Council
Period: September 2024 - September 2028 (resignation tendered in August 2024).
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Junya Ji, Joan Serra-Sagristà.
Amount granted: 76.000 euros
3. Position: Main Researcher
Project: “Interactive Coding of Images”
Reference: China Scholarship Council
Period: September 2011 - September 2014.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 3
Participants: ZhongWei Xu, Joan Bartrina Rapesta, Joan Serra-Sagristà.
Amount granted: 59.326 euros

4.6 Universitat Autònoma de Barcelona

1. Position: Main Researcher
Project: “Interactive Coding of Images”
Reference: Research personnel in training, UAB-472-02-1/2017.
Period: October 2017 - September 2021.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 3
Participants: Dion Tzamaris, Ian Blanes, Joan Serra-Sagristà.
Amount granted: 60.000 euros
2. Position: Main Researcher
Project: “Interactive Coding of Images”

Reference: Research personnel in training, UAB-472-01-3/2015.
Period: October 2015 - September 2018.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Sara Álvarez Cortés, Joan Serra-Sagristà.
Amount granted: 43.175 euros

3. Position: Main Researcher
Project: “Interactive Coding of Images”
Reference: Research personnel in training, UAB-472-01-3/2013.
Period: September 2013 - September 2016. Declination tendered in November 2014.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Francisco Joaquín García Sobrino, Joan Serra-Sagristà.
Amount granted: 43.175 euros
4. Position: Main Researcher
Project: “Interactive Coding of Images”
Reference: Research personnel in training, UAB-472-02-1/2012.
Period: January 2013 - December 2016.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Naoufal Amrani, Joan Serra-Sagristà.
Amount granted: 59.326 euros
5. Position: Main Researcher
Project: “Interactive Coding of Images”
Reference: Research personnel in training, UAB-472-02-2/2012.
Period: January 2013 - December 2016.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Pablo Enfedaque Montes, Joan Serra-Sagristà.
Amount granted: 59.326 euros
6. Position: Main Researcher
Project: “Interactive Coding of Images”
Reference: Research personnel in training, UAB-472-01-2-2/09.
Period: October 2009 - September 2013. Resignation tendered in April 2010.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Thanh Dao Duc, Joan Serra-Sagristà.
Amount granted: 59.326 euros
7. Position: Main Researcher
Project: “Interactive Coding of Images”
Reference: Research personnel in training, UAB-472-01-2-1/09.

Period: October 2009 - September 2013.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Leandro Jiménez Rodríguez, Joan Serra-Sagristà.
Amount granted: 59.326 euros

8. Position: Main Researcher

Project: “High Resolution Image Coding”
Reference: Research personnel in training, Univ. Autònoma Barcelona, 2008UAB_473.
Period: January 2008 - December 2011. Resignation tendered in July 2008.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Ian Blanes, Joan Serra-Sagristà.
Amount granted: 55.120 euros

9. Position: Main Researcher

Project: “Interactive Coding of Images”
Reference: Intensification Program I3, UAB-BI3INT2006-08.
Period: October 2007 - October 2009. Resignation tendered in January 2009.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: José Lino Monteagudo Pereira, Joan Serra-Sagristà.
Amount granted: 55.120 euros

10. Position: Main Researcher

Project: “Interactive Coding of Images”
Reference: Research personnel in training, UAB-472-03-1/07.
Period: October 2007 - September 2009.
Project Responsible: Joan Serra-Sagristà (Universitat Autònoma Barcelona)
Number of participating researchers: 2
Participants: Jorge González Conejero, Joan Serra-Sagristà.
Amount granted: 55.120 euros

4.7 Junta de Andalucía

1. Position: Researcher

Project: “Codificación de Video Escalable y su streaming sobre Internet”
Reference: TIC-6548.
Period: July 2011 - July 2014.
Project Responsible: Vicente González Ruiz (Universidad de Almería)
Number of participating researchers: 12
Participants: Auli Llinas, Francesc; Bilbao Castro, Jose Roman; Dana Perez, Jose Miguel; García Ortiz, Juan Pablo; González Ruiz, Vicente; Jimenez Rodriguez, Leandro; Lopez Granado, Otoniel Mario; Martinez Rach, Miguel Onofre; Oliver Gil, Jose Salvador; Perez Malumbres, Manue,; Piñol Peral, Pablo Jose; Serra-Sagristà, Joan.
Amount granted: 67.425 euros

5 Publications

5.1 Books

1. *IEEE Data Compression Conference*.
Proceedings IEEE. March 2024. Hardcover.
ISBN 979-8-3503-8587-8. ISSN 2375-0359.
Editor(s): Ali Bilgin, James E. Fowler, Joan Serra-Sagristà, Yan Ye, James A. Storer.
2. *IEEE Data Compression Conference*.
Proceedings IEEE. March 2023. Hardcover.
ISBN 978-8-3503-4795-1. ISSN 2375-0359.
Editor(s): Ali Bilgin, Michael W. Marcellin, Joan Serra-Sagristà, James A. Storer.
3. *IEEE Data Compression Conference*.
Proceedings IEEE. March 2022. Hardcover.
ISBN 978-1-6654-7893-9. ISSN 2375-0359.
Editor(s): Ali Bilgin, Michael W. Marcellin, Joan Serra-Sagristà, James A. Storer.
4. *Remote Sensing Data Compression*.
MDPI Remote Sensing. December 2021. 366 pages. Hardcover.
ISBN 978-3-0365-2303-3.
Editor(s): Vladimir Lukin, Benoit Vozel, Joan Serra-Sagristà.
5. *IEEE Data Compression Conference*.
Proceedings IEEE. March 2021. Hardcover.
ISBN 978-1-6654-0333-7. ISSN 2375-0359.
Editor(s): Ali Bilgin, Michael W. Marcellin, Joan Serra-Sagristà, James A. Storer.
6. *IEEE Data Compression Conference*.
Proceedings IEEE. March 2020. 412 pages; Hardcover.
ISBN 978-1-7281-6457-1. ISSN 2375-0359.
Editor(s): Ali Bilgin, Michael W. Marcellin, Joan Serra-Sagristà, James A. Storer.
7. *IEEE Data Compression Conference*.
Proceedings IEEE. March 2019. 622 pages; Hardcover.
ISBN 978-1-7281-0657-1 ISSN 2375-0359.
Editor(s): Ali Bilgin, Michael W. Marcellin, Joan Serra-Sagristà, James A. Storer.
8. *IEEE Data Compression Conference*.
Proceedings IEEE. March 2018. 440 pages; Hardcover.
ISBN 978-1-5386-4883-4. ISSN 2375-0359.
Editor(s): Ali Bilgin, Michael W. Marcellin, Joan Serra-Sagristà, James A. Storer.
9. *IEEE Data Compression Conference*.
Proceedings IEEE. April 2017. 480 pages; Hardcover.
ISBN 978-1-5090-6721-3. ISSN 1068-0314.

Editor(s): Ali Bilgin, Michael W. Marcellin, Joan Serra-Sagrìstà, James A. Storer.

10. *IEEE Data Compression Conference*.

Proceedings IEEE. April 2016. 646 pages; Hardcover.

ISBN 978-1-5090-1853-6. ISSN 1068-0314.

Editor(s): Ali Bilgin, Michael W. Marcellin, Joan Serra-Sagrìstà, James A. Storer.

11. *IEEE Data Compression Conference*.

Proceedings IEEE. April 2015. 443 pages; Hardcover.

ISBN 978-1-4799-8430-5. ISSN 1068-0314.

Editor(s): Ali Bilgin, Michael W. Marcellin, Joan Serra-Sagrìstà, James A. Storer.

12. *IEEE Data Compression Conference*.

Proceedings IEEE. March 2014. 443 pages; Hardcover.

ISBN 978-1-4799-3882-7. ISSN 1068-0314.

Editor(s): Ali Bilgin, Michael W. Marcellin, Joan Serra-Sagrìstà, James A. Storer.

13. Chapter “Compression of Microarray Images”, in *Microarray Image and Data Analysis: Theory and Practice*, edited by Luis Rueda (University of Windsor, Canada), CRC Press / Taylor & Francis, pp 193-222, March 2014.

ISBN: 9781466586826.

Authors: Miguel Hernández, Michael W. Marcellin, Joan Serra-Sagrìstà.

14. *IEEE Data Compression Conference*.

Proceedings IEEE. March 2013. 540 pages; Hardcover.

ISBN 978-1-4673-6037-1. ISSN 1068-0314.

Editor(s): Ali Bilgin, Michael W. Marcellin, Joan Serra-Sagrìstà, James A. Storer.

15. Chapter “Divide-and-conquer decorrelation for hyperspectral data compression”, in *Recent Advances in Satellite Data Compression*, pp.215-232, edited by Bormin Huang, Springer Verlag, DOI 10.1007/978-1-4614-1183-3_10, Springer Science + Business Media, LLC 2011.

Authors: Ian Blanes, Joan Serra-Sagrìstà, Peter Schelkens.

16. *Satellite Data Compression, Communication, and Processing VI*.

Proceedings SPIE Vol: 7810. August 2010. 230 pages; 22 papers; Softcover.

ISBN: 9780819473042.

Editor(s): Bormin Huang, Antonio J. Plaza, Joan Serra-Sagrìstà.

17. *Satellite Data Compression, Communication, and Processing IV*.

Proceedings SPIE Vol: 7084. August 2008. 230 pages; 22 papers; Softcover.

ISBN: 9780819473042.

Editor(s): Bormin Huang, Roger W. Heymann, Joan Serra-Sagrìstà.

18. Chapter “Remote Sensing Data Compression”, in *Computational Intelligence for Remote Sensing*, pp.27-61, edited by Manuel Graña, Richard Duro, Springer Verlag, Series: Studies in Computational Intelligence, Vol. 133, June 2008 (1st edition), 394 pages.

ISBN-10: 3540793526; ISBN-13: 978-3540793526.

Authors: Joan Serra-Sagrìstà, Francesc Aulí-Llinàs.

19. Chapter 2 of “Neural Networks as Decoders in Error-Correcting Systems for Digital Data Transmission”, in *Neural Networks and their Applications*, pp.19-34, edited by J.G. Taylor, John Wiley & Sons, Chichester 1996.
ISBN: 0-471-96282-1.
Author: Joan Serra-Sagristà.
20. *Teoria d'Autòmats*, Materials nº 28, UAB, 1996.
ISBN: 84-490-0700-3.
Authors: Q.Borges, J.Serra & J.M.Arqués.

5.2 Journal Papers. Clarivate Analytics InCites JCR indexed

1. Bachir Kaddar, Sid Ahmed Fezza, Zahid Akhtar, Wassim Hamidouche, Abdenour Hadid and Joan Serra-Sagristà, “Deepfake Detection Using Spatiotemporal Transformer,” *ACM Transactions on Multimedia Computing, Communications and Applications*, 2024. DOI: <https://doi.org/10.1145/3643030>. IF: 5.2, Q1.
2. Miguel Hernández-Cabronero, David Evans, Joan Bartrina-Rapesta, Francesc Aulí-Llinàs, Ian Blanes and Joan Serra-Sagristà, “Resiliency and Efficiency of the CCSDS 124.0-B-1 Telemetry Compression Standard,” *IEEE Access*, vol. 12, pp. 36702-36711, 2024. DOI: [10.1109/ACCESS.2024.3374227](https://doi.org/10.1109/ACCESS.2024.3374227). IF: 3.476, Q2.
3. Yubal Barrios, Joan Bartrina-Rapesta, Miguel Hernández-Cabronero, Antonio Sánchez, Ian Blanes, Joan Serra-Sagristà and Roberto Sarmiento, “Removing Data Dependencies in the CCSDS 123.0-B-2 Predictor Weight Updating,” *IEEE Geoscience and Remote Sensing Letters*, vol. 21, pp. 1-5, Jan 2024. DOI: [10.1109/LGRS.2024.3362376](https://doi.org/10.1109/LGRS.2024.3362376). IF: 5.343, Q1.
4. Joan Bartrina-Rapesta, Miguel Hernández-Cabronero, Víctor Sanchez, Joan Serra-Sagristà, Pouya Jamshidi and J. Castellani, “Prediction-Based Coding with Rate Control for Lossless Region of Interest in Pathology Imaging,” *ELSEVIER Signal Processing: Image Communication*, vol. 123, no. TBD, pp. 117087, 2024. DOI: [10.1016/j.image.2023.117087](https://doi.org/10.1016/j.image.2023.117087). IF: 3.453, Q2.
5. P. Gallés, K. Takáts, M. Hernández-Cabronero, D. Berga, L. Pega, L. Riordan-Chen, C. Garcia, G. Becker, A. Garriga, A. Bukva, J. Serra-Sagristà, D. Vilaseca and J. Marín, “A New Framework for Evaluating Image Quality Including Deep Learning Task Performances as A Proxy,” *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, vol. 17, pp. 3285-3296, 2024. DOI: [10.1109/JSTARS.2023.3342475](https://doi.org/10.1109/JSTARS.2023.3342475). IF: 5.5, Q1.
6. Sebastià Mijares i Verdú, Marie Chabert, Thomas Oberlin and Joan Serra-Sagristà, “Fixed-Quality Compression of Remote Sensing Images With Neural Networks,” *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, vol. 17, pp. 12169-12180, 2024. DOI: [10.1109/JSTARS.2024.3422215](https://doi.org/10.1109/JSTARS.2024.3422215). IF: 5.5, Q1.
7. Sebastià Mijares i Verdú, Marie Chabert, Thomas Oberlin and Joan Serra-Sagristà, “Reduced-Complexity Multirate Remote Sensing Data Compression With Neural Networks,” *IEEE Geoscience and Remote Sensing Letters*, vol. 20, no. 1, pp. 1-5, 2023. DOI: [10.1109/LGRS.2023.3325477](https://doi.org/10.1109/LGRS.2023.3325477). IF: 5.343, Q1.
8. Òscar Maireles-González, Joan Bartrina-Rapesta, Miguel Hernández-Cabronero and Joan Serra-Sagristà, “Efficient Lossless Compression of Integer Astronomical Data,” *Publications of the Astronomical Society of the Pacific*, vol. 135, no. 1051, pp. 094502, 2023. DOI: [10.1088/1538-3873/acf6e0](https://doi.org/10.1088/1538-3873/acf6e0). IF: 3.5, Q2.
9. Sebastià Mijares i Verdú, Johannes Ballé, Valero Laparra, Joan Bartrina-Rapesta, Miguel Hernández-Cabronero and Joan Serra-Sagristà, “A Scalable Reduced-Complexity Compression of Hyperspectral Remote Sensing Images Using Deep Learning,” *MDPI Remote Sensing*, vol. 15, no. 18, art. no. 4422, 2023. DOI: [10.3390/rs15184422](https://doi.org/10.3390/rs15184422). IF: 5.0, Q1.

10. Antonio Sánchez, Ian Blanes, Yubal Barrios, Miguel Hernández-Cabronero, Joan Bartrina-Rapesta, Joan Serra-Sagristà and Roberto Sarmiento, "Reducing Data Dependencies in the Feedback Loop of the CCSDS 123.0-B-2 Predictor," *IEEE Geoscience and Remote Sensing Letters*, vol. 19, no. 1, pp. 1-5, 2022. DOI: 10.1109/LGRS.2022.3213975. IF: 5.343, Q1.
11. Dion E. O. Tzamarías, Kevin Chow, Ian Blanes and Joan Serra-Sagristà, "Fast Run-Length Compression of Point Cloud Geometry," *IEEE Trans. Image Processing*, vol. 31, pp. 4490-4501, 2022. DOI: 10.1109/TIP.2022.3185541. IF: 10.856, Q1.
12. Kevin Chow, Dion Eustathios Olivier Tzamarías, Miguel Hernández-Cabronero, Ian Blanes and Joan Serra-Sagristà, "Performance Improvement on k2-raster Compact Data Structure for Hyperspectral Scenes," *IEEE Geoscience and Remote Sensing Letters*, vol. 19, no. 1, pp. 1-5, 2022. DOI: 10.1109/LGRS.2021.3084065. IF: 5.343, Q1.
13. Elia Mascolo, Satish Adhikari, Steven M. Caruso, Tagide deCarvalho, Anna Folch Salvador, Joan Serra Sagristà, Ry Young, Ivan Erill, Patrick D. Curtis, "The transcriptional regulator CtrA controls gene expression in Alphaproteobacteria phages : Evidence for a lytic deferment pathway," *Frontiers in Microbiology*, vol. 13, 2022. DOI: <https://doi.org/10.3389/fmicb.2022>. IF: 4.0, Q2.
14. Benoit Vozel, Vladimir Lukin and Joan Serra-Sagristà, "Editorial to Special Issue "Remote Sensing Data Compression"," *MDPI Remote Sensing*, vol. 13, no. 9, pp. 3727, Sep 2021. DOI: 10.3390/rs13183727. IF: 5.349, Q1.
15. Bachir Kaddar, Hadria Fizazi, Miguel Hernández-Cabronero, Victor Sanchez and Joan Serra-Sagristà, "DivNet: Efficient Convolutional Neural Network via Multilevel Hierarchical Architecture Design," *IEEE Access*, vol. 9, pp. 105892-105901, 2021. DOI: 10.1109/ACCESS.2021.3099952. IF: 3.476, Q2.
16. M. Hernández-Cabronero, A. Kiely, M. Klimesh, I. Blanes, J. Ligo, E. Magli and J. Serra-Sagristà, "The CCSDS 123.0-B-2 Low-Complexity Lossless and Near-Lossless Multispectral and Hyperspectral Image Compression Standard: A comprehensive review," *IEEE Geoscience and Remote Sensing Magazine*, vol. 9, no. 4, pp. 102-109, 2021. DOI: 10.1109/MGRS.2020.3048. IF: 13.925, Q1.
17. I. Blanes, M. Hernández-Cabronero, J. Serra-Sagristà and M. W. Marcellin, "Redundancy and Optimization of tANS Entropy Encoders," *IEEE Trans. Multimedia*, vol. 23, pp. 4341-4350, 2020. DOI: 10.1109/TMM.2020.3040547. IF: 8.182, Q1.
18. M. Hernández-Cabronero, J. Portell, I. Blanes and J. Serra-Sagristà, "High-Performance Lossless Compression of Hyperspectral Remote Sensing Scenes Based on Spectral Decorrelation," *MDPI Remote Sensing*, vol. 12, no. 18, pp. 2955, 2020. DOI: 10.3390/rs12182955. IF: 4.848, Q1.
19. Analysis of Variable-Length Codes for Integer Encoding in Hyperspectral Data Compression with the K2-Raster Compact Data Structure
MDPI Remote Sensing, vol. 12, no. 12, pp. 1983, 2020. ISSN: 2072-4292.
 Digital Object Identifier: <http://dx.doi.org/10.3390/rs12121983>.
 Authors: Kevin Chow, Dion Tzamarías, Miguel Hernández-Cabronero, Ian Blanes and Joan Serra-Sagristà.
MDPI Remote Sensing appears in *SCI Journal Citation Reports (2018)* in discipline REMOTE SENSING, with an impact factor of 4,118. Position 7 of 30 publications. Quartile: 1.
20. Manuel Martínez Torres, Miguel Hernández-Cabronero, Ian Blanes and Joan Serra-Sagristà, "High-throughput variable-to-fixed entropy codec using selective, stochastic code forests," *IEEE Access*, vol. 8, no. 1, pp. 81283-81297, 2020. DOI: 10.1109/ACCESS.2020.2991314. IF: 4.098, Q1.

21. Regression Wavelet Analysis for Near-lossless Remote Sensing Data Compression
IEEE Transactions on Geoscience and Remote Sensing, vol. 58, no. 2, pp. 790-798, 2020. ISSN: 0196-2892.
Digital Object Identifier: <http://dx.doi.org/10.1109/TGRS.2019.2940553>.
Authors: S. Alvarez-Cortes, Joan Serra-Sagristà, J. Bartrina-Rapesta and M. Marcellin.
IEEE Transactions on Geoscience and Remote Sensing appears in SCI Journal Citation Reports (2018) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 5,360. Position 28 of 265 publications. Quartile: 1.
22. Competitive Segmentation Performance on Near-lossless and Lossy Compressed Remote Sensing Images
IEEE Geoscience and Remote Sensing Letters, vol. 17, no. 5, pp. 834-838, 2020. ISSN: 1545-598X.
Digital Object Identifier 10.1109/LGRS.2019.2934997.
Authors: J. Garcia-Sobrino, A. Pinho and J. Serra-Sagristà.
IEEE Geoscience and Remote Sensing Letters appears in SCI Journal Citation Reports (2018) in discipline IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY, with an impact factor of 3,534. Position 7 of 28 publications. Quartile: 1.
23. Compression of hyperspectral scenes through integer-to-integer biorthogonal graph transform
MDPI Remote Sensing, vol. 11, no. 11, pp. 2290, 2019. ISSN: 2072-4292. Digital Object Identifier: <http://dx.doi.org/10.3390/rs1111>
Authors: Dion Tzamarías, Kevin Chow, Ian Blanes and Joan Serra-Sagristà.
MDPI Remote Sensing appears in SCI Journal Citation Reports (2018) in discipline REMOTE SENSING, with an impact factor of 4,118. Position 7 of 30 publications. Quartile: 1.
24. Using Predictive and Differential Encoding with K2-raster Compact Data Structure for Hyperspectral Image Lossless Compression
MDPI Remote Sensing, vol. 11, no. 11, pp. 2461, 2019. ISSN: 2072-4292.
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MDPI Remote Sensing appears in SCI Journal Citation Reports (2018) in discipline REMOTE SENSING, with an impact factor of 4,118. Position 7 of 30 publications. Quartile: 1.
25. A Novel Rate-Control for Predictive Image Coding with Constant Quality
IEEE ACCESS, vol. 7, no. 1, pp. 103918-103930, 2019. ISSN: 2169-3536. Digital Object Identifier: 10.1109/ACCESS.2019.2931442.
Authors: J. Bartrina-Rapesta, Michael Marcellin, Joan Serra-Sagristà and Miguel Hernandez Cabronero.
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26. Lower Bounds on the Redundancy of Huffman Codes with Known and Unknown Probabilities
IEEE ACCESS, vol. 7, no. 1, pp. 115857-115870, December 2019. ISSN: 2169-3536. Digital Object Identifier: 10.1109/ACCESS.2019.2932206.
Authors: Ian Blanes, Miguel Hernandez Cabronero, Joan Serra-Sagristà and Michael Marcellin.
IEEE ACCESS appears in SCI Journal Citation Reports (2018) in discipline COMPUTER SCIENCE, INFORMATION SYSTEMS, with an impact factor of 4.098. Position 23 of 155 publications. Quartile: 1.

27. Performance Impact of Parameter Tuning on the CCSDS-123.0-B-2 Low-Complexity Lossless and Near-Lossless Multi-spectral and Hyperspectral Image Compression Standard
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28. Improved Statistically Based Retrievals via Spatial-Spectral Data Compression for IASI Data
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IEEE Transactions on Geoscience and Remote Sensing appears in SCI Journal Citation Reports (2018) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 5,360. Position 28 of 265 publications. Quartile: 1.
29. Mosaic-Based Color-Transform Optimization for the Lossy and Lossy-to-Lossless compression of Pathology Whole-Slide Images
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Authors: Miguel Hernández-Cabronero, Victor Sanchez, Ian Blanes, Francesc Aulí-Llinàs, Michael W. Marcellin, Joan Serra-Sagristà.
IEEE Transactions on Medical Imaging appears in SCI Journal Citation Reports (2014) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 6,685. Position 18 of 249 publications. Quartile: 1.
30. Multi-Level Split Regression Wavelet Analysis for Lossless Compression of Remote Sensing Data
IEEE Geoscience and Remote Sensing Letters, vol.15, no.10, pp.1540-1544, 2018. ISSN: 1545-598X Digital Object Identifier 10.1109/LGRS.2018.2850938.
Authors: Sara Álvarez-Cortés, J. Bartrina-Rapesta and J. Serra-Sagristà.
IEEE Geoscience and Remote Sensing Letters appears in SCI Journal Citation Reports (2018) in discipline IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY, with an impact factor of 3,534. Position 7 of 28 publications. Quartile: 1.
31. Lossless Compression of Color Filter Array Mosaic Images with Visualization via JPEG 2000
IEEE Transactions on Multimedia. vol. 20, no. 2, pp. 257-270, 2018. ISSN: 1520-9210.
Authors: M. Hernández-Cabronero, M. W. Marcellin, I. Blanes, and Joan Serra-Sagristà.
IEEE Transactions on Multimedia appears in SCI Journal Citation Reports (2016) in discipline COMPUTER SCIENCE, SOFTWARE ENGINEERING, with an impact factor of 3,509. Position 5 of 106 publications. Quartile: 1.
32. Low Complexity Regression Wavelet Analysis Variants for Hyperspectral Data Lossless Compression
Taylor and Francis International Journal of Remote Sensing, 19 September 2017. ISSN: 0143-1161. Digital Object Identifier 10.1080/01431161.2017.1375617.
Authors: S. Alvarez-Cortes, N. Amrani, and J. Serra-Sagristà.

Taylor and Francis International Journal of Remote Sensing appears in SCI Journal Citation Reports (2016) in discipline IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY, with an impact factor of 1,724. Position 13 of 26 publications. Quartile: 2.

33. Hyperspectral IASI LIC Data Compression

MDPI Sensors. vol. 17, no. 6, June 2017. ISSN: 1424-8220.

Authors: J. Garcia-Sobrino, Joan Serra-Sagristà, and J. Bartrina-Rapesta.

MDPI Sensors appears in SCI Journal Citation Reports (2016) in discipline INSTRUMENTS & INSTRUMENTATION, with an impact factor of 2,677. Position 10 of 58 publications. Quartile: 1.

34. A Lightweight Contextual Arithmetic Coder for On-Board Remote Sensing Data Compression

IEEE Transactions on Geoscience and Remote Sensing, vol. 55, no. 8, pp. 4825-4835, August 2017. ISSN: 0196-2892.

Authors: J. Bartrina-Rapesta, I. Blanes, F. Auli-Llinas, Joan Serra-Sagristà, V. Sanchez, and M. Marcellin.

IEEE Transactions on Geoscience and Remote Sensing appears in SCI Journal Citation Reports (2015) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 3,360. Position 21 of 257 publications. Quartile: 1.

35. Diffusion-Based Inpainting for Coding Remote-Sensing Data

IEEE Geoscience and Remote Sensing Letters, vol. 14, no. 8, pp. 1203-1207, August 2017. ISSN: 1545-598X

Authors: N. Amrani, J. Serra-Sagristà, P. Peter, and J. Weickert.

IEEE Geoscience and Remote Sensing Letters appears in SCI Journal Citation Reports (2015) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 2,228. Position 56 of 257 publications. Quartile: 1.

36. Progressive Lossy-to-Lossless Coding of Hyperspectral Images through Regression Wavelet Analysis

Taylor and Francis International Journal of Remote Sensing, vol. 39, no. 7, pp. 2001-2021, July 2017. ISSN: 0143-1161. Digital Object Identifier: 10.1080/01431161.2017.1343515.

Authors: S. Alvarez-Cortes, N. Amrani, M. Hernandez-Cabronero, and J. Serra-Sagristà.

Taylor and Francis International Journal of Remote Sensing appears in SCI Journal Citation Reports (2015) in discipline IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY, with an impact factor of 1,640. Position 8 of 24 publications. Quartile: 2.

37. Almost Fixed Quality Rate Allocation under Unequal Scaling Factors for On-Board Remote Sensing Data Compression

Taylor and Francis International Journal of Remote Sensing, vol. 39, no. 7, pp. 1953-1970, July 2017. ISSN: 0143-1161. Digital Object Identifier: 10.1080/01431161.2017.1334137.

Authors: I. Blanes, M. Albinet, R. Camarero, and J. Serra-Sagristà.

Taylor and Francis International Journal of Remote Sensing appears in SCI Journal Citation Reports (2015) in discipline IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY, with an impact factor of 1,640. Position 8 of 24 publications. Quartile: 2.

38. Statistical atmospheric parameter retrieval largely benefits from spatial-spectral image compression

IEEE Transactions on Geoscience and Remote Sensing, vol. 55, no. 4, pp. 2213-2224, April 2017. Digital Object Identifier 10.1109/TGRS.2016.2639099. ISSN: 0196-2892.

Authors: J. Garcia-Sobrino, Joan Serra-Sagristà, V. Laparra, X. Calbet, and G. Camps-Valls.

IEEE Transactions on Geoscience and Remote Sensing appears in SCI Journal Citation Reports (2015) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 3,360. Position 21 of 257 publications. Quartile: 1.

39. DPCM-based Edge Prediction for Lossless Screen Content Coding in HEVC

IEEE Journal on Emerging and Selected Topics in Circuits and Systems, vol. 6, no. 4, pp. 497-507, Dec. 2016. Digital Object Identifier

10.1109/JETCAS.2016.2606513. ISSN: 2156-3357.

Authors: Victor Sanchez, Francesc Auli-Llinas, Joan Serra-Sagristà.

IEEE Journal on Emerging and Selected Topics in Circuits and Systems appears in SCI Journal Citation Reports (2016) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 2,542. Position 79 of 262 publications. Quartile: 2.

40. Piecewise Mapping in HEVC Lossless Intra-prediction Coding

IEEE Transactions on Image Processing, vol. 25, no. 9, pp. 4004-4017, Sep. 2016. Digital Object Identifier

10.1109/TIP.2016.2571065. ISSN: 1057-7149.

Authors: Victor Sanchez, Francesc Auli-Llinas, Joan Serra-Sagristà.

IEEE Transactions on Image Processing appears in SCI Journal Citation Reports (2014) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 3,625. Position 14 of 249 publications. Quartile: 1.

41. Regression Wavelet Analysis for Lossless Coding of Remote-Sensing Data

IEEE Transactions on Geoscience and Remote Sensing, vol. 54, no. 9, pp. 5616-5627, Sep. 2016. Digital Object Identifier

10.1109/TGRS.2016.2569485. ISSN: 0196-2892.

Authors: Naoufal Amrani, Joan Serra-Sagristà, Valero Laparra, Michael Marcellin, Jesus Malo.

IEEE Transactions on Geoscience and Remote Sensing appears in SCI Journal Citation Reports (2014) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 3,514. Position 15 of 249 publications. Quartile: 1.

42. Progressive Lossy-to-Lossless Compression of DNA Microarray Images

IEEE Signal Processing Letters, vol. 23, no. 5, pp. 698-702, May 2016. Digital Object Identifier 10.1109/LSP.2016.2547893. ISSN: 1070-9908.

Authors: Miguel Hernández-Cabronero, Ian Blanes, Armando J. Pinho, Michael W. Marcellin, Joan Serra-Sagristà.

IEEE Signal Processing Letters appears in SCI Journal Citation Reports (2016) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 2,528. Position 83 of 262 publications. Quartile: 2.

43. Diagnostically Lossless Coding of X-ray Angiography Images based on Background Suppression

Elsevier Computers & Electrical Engineering. In Press, 2016. Digital Object Identifier: 10.1016/j.compeleceng.2016.02.014. ISSN: 0045-7906.

Authors: Zhongwei Xu, Joan Bartrina-Rapesta, Ian Blanes, Victor Sanchez, Joan Serra-Sagristà, Marcel García-Bach, Juan Francisco Muñoz.

Elsevier Computers & Electrical Engineering appears in SCI Journal Citation Reports (2015) in discipline COMPUTER SCIENCE, HARDWARE & ARCHITECTURE, with an impact factor of 1,570. Position 24 of 51 publications. Quartile: 2.

44. Analysis-Driven Lossy Compression of DNA Microarray Images
 IEEE Transactions on Medical Imaging, vol. 35, no. 2, pp. 654-664, February 2016. Digital Object Identifier: 10.1109/TMI.-2015.2489262. ISSN: 0278-0062.
 Authors: Miguel Hernández-Cabronero, Ian Blanes, Armando J. Pinho, Michael W. Marcellin, Joan Serra-Sagristà.
 IEEE Transactions on Medical Imaging appears in SCI Journal Citation Reports (2014) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 3,393. Position 18 of 249 publications. Quartile: 1.
45. Efficient storage of microCT data preserving bone morphometry assessment
 Elsevier Computers & Electrical Engineering, In Press, July 2015. Digital Object Identifier: 10.1016/j.compeleceng.2015.06.020. ISSN: 0045-7906.
 Authors: Joan Bartrina-Rapesta, Francesc Auli-Llinas, Ian Blanes, Michael W. Marcellin, Victor Sanchez, Joan Serra-Sagristà.
 Elsevier Computers & Electrical Engineering appears in SCI Journal Citation Reports (2015) in discipline COMPUTER SCIENCE, HARDWARE & ARCHITECTURE, with an impact factor of 1,570. Position 24 of 51 publications. Quartile: 2.
46. A Fully Embedded Two-Stage Coder for Hyperspectral Near-lossless Compression
 IEEE Geoscience and Remote Sensing Letters, vol. 12, no. 8, pp. 1775-1779, 2015. Digital Object Identifier: 10.1109/LGRS.2015.2489262. ISSN: 1545-598X.
 Authors: Jente Beerten, Ian Blanes, Joan Serra-Sagristà.
 IEEE Geoscience and Remote Sensing Letters appears in SCI Journal Citation Reports (2014) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 2,095. Position 57 of 249 publications. Quartile: 1.
47. Proposal for IASI onboard data compression
 SPIE Journal of Applied Remote Sensing. vol. 9, no. 1, 097498 (May 2015). doi:10.1117/1.JRS.9.097498. ISSN: 1931-3195.
 Authors: Joaquin García Sobrino, Ian Blanes, Mathieu Albinet, Roberto Camarero, Joan Serra-Sagristà.
 SPIE Journal of Applied Remote Sensing appears in SCI Journal Citation Reports (2014) in discipline IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY, with an impact factor of 1,183. Position 15 of 24 publications. Quartile: 3.
 SPIE Journal of Applied Remote Sensing is abstracted and indexed in many leading scientific databases, including Science Citation Index Expanded; Web of Science; Current Contents/Physical, Chemical & Earth Sciences; Current Contents/Agriculture, Biology & Environmental Sciences; Inspec; Scopus; and Ei Compendex.
48. On the Hardware complexity of the arithmetic elements of the Pairwise Orthogonal Transform
 SPIE Journal of Applied Remote Sensing. vol. 9, no. 1, (May 2015). doi:10.1117/1.JRS.9.YYY. ISSN: 1931-3195.
 Authors: Lucana Santos, Ian Blanes, Aday Garcia, Joan Serra-Sagristà, Jose Lopez, Roberto Sarmiento.
 SPIE Journal of Applied Remote Sensing appears in SCI Journal Citation Reports (20134) in discipline IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY, with an impact factor of 1,183. Position 15 of 24 publications. Quartile: 3.
 SPIE Journal of Applied Remote Sensing is abstracted and indexed in many leading scientific databases, including Science Citation Index Expanded; Web of Science; Current Contents/Physical, Chemical & Earth Sciences; Current Contents/Agriculture, Biology & Environmental Sciences; Inspec; Scopus; and Ei Compendex.

49. Isorange Pairwise Orthogonal Transform

IEEE Transactions on Geoscience and Remote Sensing, vol. 53, no. 6, pp. 3361-3372, June 2015. Digital Object Identifier: 10.1109/TGRS.2014.2374473.

ISSN: 0196-2892.

Authors: Ian Blanes, Miguel Hernández-Cabronero, Francesc Aulí-Llinàs, Joan Serra-Sagristà, Michael W. Marcellin.

IEEE Transactions on Geoscience and Remote Sensing appears in SCI Journal Citation Reports (2014) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 3,514. Position 15 of 249 publications. Quartile: 1.

50. Hybrid compression of Hyperspectral images based in PCA with pre-encoding discriminant information

IEEE Geoscience and Remote Sensing Letters, vol. 12, no. 7, pp. 1491-1495, 2015. Digital Object Identifier: 10.1109/LGRS.2015.2491109. ISSN: 1545-598X.

Autores: Chulhee Lee, Sungwook Youn, Taeuk Jeong, Eunjae Lee, Joan Serra-Sagristà.

IEEE Geoscience and Remote Sensing Letters appears in SCI Journal Citation Reports (2014) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 2,095. Position 57 of 249 publications. Quartile: 1.

51. A Tutorial on Image Compression for Optical Space Imaging Systems

IEEE Geoscience and Remote Sensing Magazine. Volume 2, Issue 3, September 2014.

ISSN: 2168-6831.

Authors: Ian Blanes, Enrico Magli, Joan Serra-Sagristà.

IEEE Geoscience and Remote Sensing Magazine appears in SCI Journal Citation Reports (2016) in discipline IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY, with an impact factor of 2,676. Position 8 of 26 publications. Quartile: 2.

52. JPIP Proxy Server with Prefetching Strategies Based on User-Navigation Model and Semantic Map

IEEE Transactions on Multimedia. vol. 15, no. 7, pp. 1491-1502, Nov. 2013. ISSN: 1520-9210.

Authors: Jose Lino Monteagudo Pereira, Francesc Aulí-Llinàs, and Joan Serra-Sagristà.

IEEE Transactions on Multimedia appears in SCI Journal Citation Reports (2014) in discipline COMPUTER SCIENCE, SOFTWARE ENGINEERING, with an impact factor of 2,303. Position 5 of 104 publications. Quartile: 1.

53. Correlation Modeling for Compression of Computed Tomography Images

IEEE Journal of Biomedical and Health Informatics. vol. 17, no. 5, pp. 928-935, Sept. 2013. ISSN: 2168-2194.

Authors: Juan Muñoz, Joan Bartrina-Rapesta, Michael W. Marcellin, and Joan Serra-Sagristà.

IEEE Journal of Biomedical and Health Informatics, which appears in SCI Journal Citation Reports (2016) in discipline COMPUTER SCIENCE, INFORMATION SYSTEMS, with an impact factor of 3,451. Position 20 of 146 publications. Quartile: 1.

54. Lossy-to-Lossless 3D Image Coding through Prior Coefficient Lookup Tables

Elsevier Information Sciences. vol. 239, no. 1, pp. 266-282, Aug. 2013. ISSN: 0020-0255.

Authors: Francesc Aulí-Llinàs, Michael W. Marcellin, Joan Serra-Sagristà, and Joan Bartrina-Rapesta.

Elsevier Information Sciences appears in SCI Journal Citation Reports (2014) in discipline COMPUTER SCIENCE, INFORMATION SYSTEMS, with an impact factor of 4,038. Position 6 of 139 publications. Quartile: 1.

55. Performance Impact of Parameter Tuning on the CCSDS-123 Lossless Multi- and Hyperspectral Image Compression Standard
SPIE Journal of Applied Remote Sensing. vol. 7, no. 1, 074594 (Aug 26, 2013). doi:10.1117/1.JRS.7.074594. ISSN: 1931-3195.
Authors: Estanislau Augé, Jose Enrique Sánchez, Aaron Kiely, Ian Blanes, Joan Serra-Sagristà.
SPIE Journal of Applied Remote Sensing appears in SCI Journal Citation Reports (2014) in discipline IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY, with an impact factor of 1,183. Position 15 of 24 publications. Quartile: 3.
SPIE Journal of Applied Remote Sensing is abstracted and indexed in many leading scientific databases, including Science Citation Index Expanded; Web of Science; Current Contents/Physical, Chemical & Earth Sciences; Current Contents/Agriculture, Biology & Environmental Sciences; Inspec; Scopus; and Ei Compendex.
56. Divide-and-conquer strategies for hyperspectral image processing
IEEE Signal Processing Magazine, vol. 29, no. 3, pp. 71-81, May 2012. Digital Object Identifier 10.1109/MSP.2011.2179416. ISSN: 1053-5888.
Authors: Ian Blanes, Joan Serra-Sagristà, Michael W. Marcellin, and Joan Bartrina-Rapesta.
IEEE Signal Processing Magazine appears in SCI Journal Citation Reports (2014) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 5,852. Position 4 of 249 publications. Quartile: 1.
57. Pairwise Orthogonal Transform for Spectral Image Coding
IEEE Transactions on Geoscience and Remote Sensing. Volume 49, Issue 3, pp. 961-972, March 2011. Digital Object Identifier: 10.1109/TGRS.2010.2071880
ISSN: 0196-2892.
Authors: Ian Blanes, Joan Serra-Sagristà.
IEEE Transactions on Geoscience and Remote Sensing appears in SCI Journal Citation Reports (2014) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 3,514. Position 15 of 249 publications. Quartile: 1.
58. On the Impact of Lossy Compression on Hyperspectral Image Classification and Unmixing
IEEE Geoscience and Remote Sensing Letters. Volume 7, Issue 2, pp. 253-257, March 2011. Digital Object Identifier: 10.1109/LGRS.2010.2062484. ISSN: 1545-598X.
Authors: Fernando García-Vílchez, Jordi Muñoz-Marí, Maciel Zorteza, Ian Blanes, Vicente González, Gustavo Camps-Valls, Antonio Plaza, Joan Serra-Sagristà.
IEEE Geoscience and Remote Sensing Letters appears in SCI Journal Citation Reports (2014) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 2,095. Position 57 of 249 publications. Quartile: 1.
59. JPEG2000 ROI Coding Through Component Priority for Digital Mammography
Elsevier Computer Vision and Image Understanding. Volume 115, Issue 1, January 2011, Pages 59-68. doi:10.1016/j.cviu.2010.09.008. ISSN: 1077-3142.
Authors: Joan Bartrina-Rapesta, Joan Serra-Sagristà, and Francesc Aulí-Llinàs.
Elsevier Computer Vision and Image Understanding appears in SCI Journal Citation Reports (2010) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 2,404. Position 26 of 247 publications. Quartile: 1.

60. Enhanced JPEG2000 Quality Scalability through Block-Wise Layer Truncation
EURASIP Journal on Advances in Signal Processing, vol. 2010, Article ID 803542, 11 pages, 2010. doi:10.1155/2010/803542. ISSN: 1687-6172. e-ISSN: 1687-6180.
Authors: Francesc Aulí-Llinàs, Joan Serra-Sagristà, Joan Bartrina-Rapesta.
EURASIP Journal on Advances in Signal Processing appears in SCI Journal Citation Reports (2016) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 1,961. Position 112 of 262 publications. Quartile: 2.
61. JPEG2000 encoding of images with NODATA regions for Remote Sensing applications.
SPIE Journal of Applied Remote Sensing, Vol.4, Issue 1, 041793, July 2010.
ISSN: 1931-3195.
Authors: Alaitz Zabala, Jorge González, Joan Serra-Sagristà, Xavier Pons.
SPIE Journal of Applied Remote Sensing appears in SCI Journal Citation Reports (2010) in discipline IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY, with an impact factor of 1,00. Position 7 of 19 publications. Quartile: 2.
SPIE Journal of Applied Remote Sensing is abstracted and indexed in many leading scientific databases, including Science Citation Index Expanded; Web of Science; Current Contents/Physical, Chemical & Earth Sciences; Current Contents/Agriculture, Biology & Environmental Sciences; Inspec; Scopus; and Ei Compendex.
62. Cost and Scalability Improvements to the Karhunen-Loève Transform for Remote-Sensing Image Coding
IEEE Transactions on Geoscience and Remote Sensing. Volume 48, Issue 7, pp. 2854-2863, July 2010. ISSN: 0196-2892.
Authors: Ian Blanes, Joan Serra-Sagristà.
IEEE Transactions on Geoscience and Remote Sensing appears in SCI Journal Citation Reports (2014) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 3,514. Position 15 of 249 publications. Quartile: 1.
63. JPEG2000 Encoding of Remote Sensing Multispectral Images with No-Data Regions.
IEEE Geoscience and Remote Sensing Letters. Volume 7, Issue 2, pp. 251-255, April 2010. ISSN: 1545-598X.
Authors: Jorge González-Conejero, Joan Bartrina-Rapesta, Joan Serra-Sagristà.
IEEE Geoscience and Remote Sensing Letters appears in SCI Journal Citation Reports (2014) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 2,095. Position 57 of 249 publications. Quartile: 1.
64. Extending the CCSDS Recommendation for Image Data Compression for Remote Sensing Scenarios.
IEEE Transactions on Geoscience and Remote Sensing. Volume 47, Issue 10, pp. 3431-3445, October 2009.
Digital Object Identifier 10.1109/TGRS.2009.2021067
ISSN: 0196-2892.
Authors: Fernando Garcia-Vilchez, Joan Serra-Sagristà.
IEEE Transactions on Geoscience and Remote Sensing appears in SCI Journal Citation Reports (2014) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 3,514. Position 15 of 249 publications. Quartile: 1.

65. Self-Conducted Allocation Strategy of Quality Layers for JPEG2000.
EURASIP Journal on Advances in Signal Processing. Accepted in November 2008.
ISSN: 1687-6172. e-ISSN: 1687-6180. doi:10.1155/ASP
Authors: Francesc Aulí-Llinàs, Joan Bartrina-Rapesta, Joan Serra-Sagristà.
EURASIP Journal on Advances in Signal Processing appears in SCI Journal Citation Reports (2016) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 1,961. Position 112 of 262 publications. Quartile: 2.
66. JPEG2000 ROI Coding with Fine-Grain Accuracy through Rate-Distortion Optimization Techniques.
IEEE Signal Processing Letters, vol. 16, no. 1, pp.45-48. January 2009.
ISSN: 1070-9908. Digital Object Identifier 10.1109/LSP.2008.2008570.
Authors: Joan Bartrina-Rapesta, Joan Serra-Sagristà, Francesc Aulí-Llinàs.
IEEE Signal Processing Letters appears in SCI Journal Citation Reports (2008) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 1,203. Position 104 of 229 publications. Quartile: 2.
67. JPEG2000 Quality Scalability Without Quality Layers.
IEEE Transactions on Circuits and Systems for Video Technology. Volume 18, Issue 7, pp. 923-936, July 2008. ISSN: 1051-8215.
Authors: Francesc Aulí-Llinàs and Joan Serra-Sagristà.
IEEE Transactions on Circuits and Systems for Video Technology appears in SCI Journal Citation Reports (2008) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 2,951. Position 24 of 229 publications. Quartile: 1.
68. Low complexity JPEG2000 rate control through reverse subband scanning order and coding passes concatenation.
IEEE Signal Processing Letters, vol. 14, no. 4, pp.251-254. April 2007.
ISSN: 1070-9908.
Authors: Francesc Aulí-Llinàs and Joan Serra-Sagristà.
IEEE Signal Processing Letters appears in SCI Journal Citation Reports (2007) in discipline ENGINEERING, ELECTRICAL & ELECTRONIC, with an impact factor of 1,11. Position 74 of 227 publications. Quartile: 2.
69. BISK Scheme Applied to Sign Encoding and to Magnitude Refinement
Lecture Notes in Computer Science, Vol. 3708, pp. 442-451, 2005.
ISSN: 0302-9743.
Authors: M.Bras-Amorós, P.Guitart-Colom, J.González-Conejero, J.Serra-Sagristà and F.García-Vílchez.
Lecture Notes in Computer Science (LNCS) appears in SCI Journal Citation Reports (2005) in discipline Computer Science, Theory and Methods, with an impact factor of 0.402. Position 62 of 71 publications. Quartile: 4.
70. Review of Coding Techniques Applied to Remote Sensing
Lecture Notes in Computer Science, Vol. 3213, pp. 647-654, 2004.
ISSN: 0302-9743.
Authors: J.Serra-Sagristà, F.Aulí-Llinàs, F.García, J.González and P.Guitart.
Lecture Notes in Computer Science (LNCS) appears in SCI Journal Citation Reports (2004) in discipline Computer Science, Theory and Methods, with an impact factor of 0.513. Position 53 of 70 publications. Quartile: 4.

71. Enumeration of lattice points in L1 norm.

Information Processing Letters 76 No. 1-2, pp. 39-44, November 2000.

ISSN: 0020-0190

Author: Joan Serra-Sagristà.

Information Processing Letters appears in Science Citation Index - Journal Citation Reports de 2000 with an impact factor of 0,360 (the first in the list has an impact factor of 3,089). Position 44 of 67 publications. Quartile: 3.

5.3 Journal Papers. Other indices

1. Pau Gallés, Katalin Takáts, Miguel Hernández-Cabronero, David Berga, Luciano Pega, Laura Riordan-Chen, Clara Garcia, Guillermo Becker, Adan Garriga, Anica Bukva, Joan Serra-Sagristà, David Vilaseca, Javier Marín: IQUAFLOW: A new framework to measure image quality. CoRR abs/2210.13269 (2022)

2. Ian Blanes, Miguel Hernández-Cabronero, Joan Serra-Sagristà, Michael W. Marcellin: Bounds on the Redundancy of Huffman Codes with Known and Unknown Probabilities. CoRR abs/1809.05454 (2018)

3. Manuel Martínez, Joan Serra-Sagristà: Rice-Marlin Codes: Tiny and Efficient Variable-to-Fixed Codes. CoRR abs/1811.05756 (2018)

4. Standard and specific compression techniques for DNA microarray images

Algorithms. Special issue: Data Compression, Communication and Processing. Invited paper. Volume 5, Issue 1, pp. 30-49, February 2012.

ISSN 1999-4893. DOI: 10.3390/a5010030.

Authors: Miguel Hernandez-Cabronero, Ian Blanes, Michael Marcellin, Joan Serra-Sagristà.

Algorithms is covered by following indexing and abstracting databases: Chemical Abstracts (CAS), DBLP Computer Science Bibliography, Directory of Open Access Journals (DOAJ), e-Helvetica (Swiss National Library Archive), EBSCOhost, Google Scholar, INSPEC, io-port, MathSciNet, Open-J-Gate, Scopus / SciVerse, Zentralblatt MATH, and has been submitted for evaluation to receive an impact factor in the Web of Science.

5. Special issue on image compression technologies for medical applications

IEEE COMSOC MMTC E-letter, MULTIMEDIA COMMUNICATIONS TECHNICAL COMMITTEE, IEEE Communications Society. Vol. 6, No. 7, July 2011.

Editor(s): Joan Serra-Sagristà, Ali Bilgin.

6. JPEG2000 Low Complexity, Self-Conducted Allocation Method of Quality Layers

Lecture Notes in Computer Science, Vol. 4692, pp.478-484, 2007.

ISSN: 0302-9743.

Authors: F.Aulí-Llinàs, Joan Serra-Sagristà, C.Rúbies-Feijoo and L.Donosó-Bach.

Lecture Notes in Computer Science (LNCS) appears in SCI Journal Citation Reports (2002) in discipline Computer Science, Theory and Methods, with an impact factor of 0.515. Position 39 of 69 publications.

7. JPEG2000 Coding Techniques Addressed To Images Containing No-Data Regions

Lecture Notes in Computer Science, Vol. 4678, pp.1024-1036, 2007.

ISSN: 0302-9743.

Authors: J.González-Conejero, F.Aulí-Llinàs, J.Bartrina, Joan Serra-Sagristà.

Lecture Notes in Computer Science (LNCS) appears in SCI Journal Citation Reports (2002) in discipline Computer Science, Theory and Methods, with an impact factor of 0.515. Position 39 of 69 publications.

8. Sign and Magnitude Refinement Encoding for Lossy-to-Lossless Image Compression.

WSEAS Transactions on Signal Processing. 2 (November 2005), no. 1, 229-236.
ISSN: 1790-5022.

Authors: M.Bras-Amoros, J.Gonzalez-Conejero, P.Guitart-Colom, J.Serra-Sagristà and F.Garcia-Vilchez.

WSEAS Transactions on Signal Processing are indexed in scientific data bases as INSPEC (IEE), ISI (ISINET), ELSEVIER, CSA, AMS Mathematical Reviews, ELP, NLG, Engineering Index, Directory of Published Proceedings, ZENTRABLATT, British Library, Swets Information Services.

9. Evaluation of JPEG and JPEG2000 effects on remote sensing image classification for mapping natural areas.

WSEAS Transactions on Information Science and Applications. 2 (June 2005), no. 6, 717-725.
ISSN: 1790-0832.

Authors: A.Zabala, X.Pons, J.Masó, F.García, F.Aulí and J.Serra-Sagristà.

WSEAS Transactions on Information Science and Applications are indexed in scientific data bases as INSPEC (IEE), ISI (ISINET), ELSEVIER, CSA, AMS Mathematical Reviews, ELP, NLG, Engineering Index, Directory of Published Proceedings, ZENTRABLATT, British Library, Swets Information Services.

10. Analysis of CCSDS-ILDC for Remote Sensing Data Compression.

WSEAS Transactions on Systems. 3 (July 2004), no. 5, 2176-2180.
ISSN: 1109-2777.

Authors: J.Serra-Sagristà, C.Fernandez, F.Garcia and F.Aulí.

WSEAS Transactions on Systems are indexed in scientific data bases as INSPEC (IEE), ISI (ISINET), ELSEVIER, CSA, AMS Mathematical Reviews, ELP, NLG, Engineering Index, Directory of Published Proceedings, ZENTRABLATT, British Library, Swets Information Services.

11. Hyperspectral Image Coding for Remote Sensing Applications.

SPIE Electronic Imaging Newsletters. 13 (January 2003), no. 1, 4-8.
ISSN: 0099-3093.

Author: Joan Serra-Sagristà.

5.4 Top Conference Papers

The Proceedings of the following conferences appear in Computing Research and Education Association (CORE) Rankings of Australasia, <http://www.core.edu.au/> (2018), with the following categories:

Title	Category
Data Compression Conference	A* (top 4%)
IEEE International Conference on Image Processing	B (top 26%)
IEEE International Conference on Acoustics, Speech and Signal Processing	B
Advanced Concepts for Intelligent Vision Systems	B
International Conference on Knowledge-Based and Intelligent Information and Engineering Systems	B
SPIE Visual Communications and Image Processing	B
Formal Power Series and Algebraic Combinatorics	B
Picture Coding Symposium	C (top 49%)
Asilomar Conference on Signals, Systems and Computing	C
IEEE International Geoscience and Remote Sensing Symposium	C
Engineering Applications of Artificial Neural Networks	C

1. Analysis of Lossless Compressors Applied to Integer and Floating-Point Astronomical Data
Data Compression Conference 2022, IEEE Computer Society Press. ISSN: 1068-0314
Authors: Òscar Maireles-González, Joan Bartrina-Rapesta, Miguel Hernández-Cabronero and J. Serra-Sagristà.
2. Hyperspectral remote sensing data compression with neural networks
Data Compression Conference 2022, IEEE Computer Society Press. ISSN: 1068-0314
Authors: Sebastià Mijares i Verdú, Johannes Ballé, Valero Laparra, Joan Bartrina-Rapesta, Miguel Hernández-Cabronero and J. Serra-Sagristà.
3. Compression of point cloud geometry through a single projection
Data Compression Conference 2021, IEEE Computer Society Press. ISSN: 1068-0314
Authors: Dion Eustathios Olivier Tzamarias, Kevin Chow, Ian Blanes and J. Serra-Sagristà.
4. Hybrid Intra-Prediction in Lossless Video Coding using Overfitted Neural Networks
Data Compression Conference 2021, IEEE Computer Society Press. ISSN: 1068-0314
Authors: Victor Sanchez, Miguel Hernández-Cabronero and J. Serra-Sagristà.
5. Orthogonality and Zero DC Tradeoffs in Biorthogonal Graph Filterbanks
International Conference on Acoustics, Speech and Signal Processing 2021, IEEE. ISSN: 1520-6149
Authors: Dion Eustathios Olivier Tzamarias, Eduardo Pavez, Benjamin Girault, Antonio Ortega, Ian Blanes and J. Serra-Sagristà.
6. Block-Wise Intra-Prediction of Imaging Data Based on Overfitted Neural Networks with On-Line Learning
Machine Learning and Signal Processing 2021, IEEE. ISSN: 1551-2541
Authors: Victor Sanchez, Miguel Hernández-Cabronero and J. Serra-Sagristà.
7. Rice-Marlin Codes: Tiny and Efficient Variable-to-Fixed Codes
Data Compression Conference 2019, IEEE Computer Society Press. ISSN: 1068-0314
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26. "Proposal for IASI onboard data compression", in *4th International Workshop on On-Board Payload Data Compression (OBPDC)*, Venice, Italy, 23 & 24 October 2014.
Authors: Joaquin Garcia-Sobrino, Ian Blanes, Mathieu Albinet, Roberto Camarero, Joan Serra-Sagristà.
27. "Impact of near-lossless compression of IASI L1C data on statistical retrieval of atmospheric profiles", in *4th International Workshop on On-Board Payload Data Compression (OBPDC)*, Venice, Italy, 23 & 24 October 2014.
Authors: Joaquin Garcia-Sobrino, Ian Blanes, Valero Laparra, Gustau Camps-Valls, Joan Serra-Sagristà.
28. "On the Hardware Complexity of the Arithmetic Elements of the Pairwise Orthogonal Transform", in *4th International Workshop on On-Board Payload Data Compression (OBPDC)*, Venice, Italy, 23 & 24 October 2014.
Authors: Lucana Santos, Ian Blanes, Aday Garcia, Joan Serra-Sagristà, Jose Lopez, Roberto Sarmiento.
29. HEVC-based Lossless Compression of Whole Slide Pathology Images
IEEE Global Conference on Signal and Information Processing (GlobalSIP) 2014, IEEE Press. ISBN: 978-1-4799-7088-9.
Authors: Victor Sanchez, Francesc Auli-Llinas, Joan Bartrina-Rapesta, and Joan Serra-Sagristà.
30. "Influence of Lossy Compressed DEM on Radiometric Correction for Land Cover Classification of Remote Sensing Images", in *American Geophysical Union's 45th Fall Meeting*, San Francisco, California, USA. 3-7 December 2012.
Authors: Gerard Moré, Lluís Pesquer, Ian Blanes, Joan Serra-Sagristà, Xavier Pons.
31. "Performance Impact of Parameter Tuning on the CCSDS-123 Lossless Multi- and Hyperspectral Image Compression Standard", in *3rd International Workshop on On-Board Payload Data Compression (OBPDC)*, Barcelona, Spain. 29 & 30 October 2012.
Authors: Jose Enrique Sánchez, Estanislau Augé, Aaron Kiely, Ian Blanes, Joan Serra-Sagristà.
32. "Proposal based on POT+WaterFilling+CCSDS-122", in *Multi/Hyper-spectral Data Compression Working Group. CCSDS Fall Meeting 2012*, Cleveland, Ohio, USA. 15-18 October 2012.
Authors: Ian Blanes, Joan Serra-Sagristà.
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Authors: Victor Sanchez, Joan Serra-Sagristà.

34. “Multicomponent compression of DNA microarray images”, in *II Workshop on Multimedia Data Coding and Transmission (WMDCT)*, Jornadas SARTECO, Elx, Spain. 19-21 September 2012.
 Authors: Miguel Hernandez-Cabronero, Francesc Auli-Llinas, Joan Bartrina-Rapesta, Ian Blanes, Leandro Jimenez-Rodriguez, Michael W. Marcellin, Juan Muñoz-Gomez, Victor Sanchez, Joan Serra-Sagristà, Zhongwei Xu.
35. “Low-Complexity Lossy Image Coding through a Near-Optimal General Embedded Quantizer”, in *IET Image Processing Conference*, 3 - 4 July 2012 | University of Westminster, London, UK.
 Authors: F. Auli-Llinas, J. Lino-Monteagudo, J. Serra-Sagristà, and J. Bartrina-Rapesta.
36. “Impact of User Concurrency in Commonly Used Open Geospatial Consortium Map Server Implementations ”, in *Proc. IARIA International Conference on Advanced Communications and Computation*, (INFOCOMP 2011), pp. 179-186, Barcelona. 23 - 29 October 2011. ISSN: 978-1-61208-161-8.
 Authors: Joan Maso, Paula Diaz, Xavier Pons, J. Serra-Sagristà, J. Lino-Monteagudo, and F. Auli-Llinas.
37. “A review of DNA microarray image compression”, in *IEEE 1st International Conference on Data Compression, Communication and Processing (CCP 2011)*, King’s Residence Hotel, Palinuro (SA), Italy, June 21-24, 2011.
 Authors: Miguel Hernandez-Cabronero, Ian Blanes, Joan Serra-Sagristà, Michael W. Marcellin.
38. “Review and implementation of the future CCSDS Recommendation for multi- and hyperspectral lossless image coding”, in *IEEE 1st International Conference on Data Compression, Communication and Processing (CCP 2011)*, King’s Residence Hotel, Palinuro (SA), Italia, June 21-24, 2011.
 Authors: Jose Enrique Sanchez, Estanislau Auge, Josep Santalo, Ian Blanes, Joan Serra-Sagristà, Aaron Kiely.
39. “Low complexity, high efficiency probability model for hyper-spectral image coding”, in *IEEE 1st International Conference on Data Compression, Communication and Processing (CCP 2011)*, King’s Residence Hotel, Palinuro (SA), Italia, June 21-24, 2011.
 Authors: Francesc Auli-Llinas, Joan Bartrina-Rapesta, Joan Serra-Sagristà, Michael W. Marcellin.
40. “Extensions to the CCSDS IDC Recommendation for On-Board Hyperspectral Image Coding”, in *2nd International Workshop on On-Board Payload Data Compression (OBPDC)*, CNES, Toulouse, France, 28 & 29 October 2010.
 Authors: Ian Blanes, F.García, Joan Serra-Sagristà.
41. “Side information coding for the Pairwise Orthogonal Transform”, in *Workshop on Multimedia Data Coding and Transmission (WMDCT)*, Congreso Español de Informática (CEDI), Valencia (Spain), 8-9 September 2010.
 Authors: Ian Blanes, Joan Serra-Sagristà, Francesc Auli-Llinàs, Joan Bartrina-Rapesta, Leandro Jiménez-Rodríguez, Juan Muñoz-Gómez.
42. “4D remote sensing image coding with JPEG2000”, in *Satellite Data Compression, Communication, and Processing VI (OP 404)*, Optical Engineering + Applications Symposium, Remote Sensing Instrumentation Program Track, SPIE Optics and Photonics, San Diego, California, USA, 3-5 August 2010. Vol. 7810.
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 Authors: Juan Muñoz-Gomez, Joan Bartrina-Rapesta, Ian Blanes-Garcia, Leandro Jimenez-Rodriguez, Francesc Auli-Llinas, Joan Serra-Sagristà.
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44. “Quality analysis in N-dimensional lossy compression of multispectral remote sensing time series images”, in *Satellite Data Compression, Communication, and Processing VI (OP 404)*, Optical Engineering + Applications Symposium, Remote Sensing Instrumentation Program Track, SPIE Optics and Photonics, San Diego, California, USA, 3-5 August 2010. Vol. 7810.
ISSN: 0277-786X/09.
Authors: L. Pesquer, A. Zabala, X. Pons, and J. Serra-Sagristà.
45. “JPEG2000 rate-control for improved transmission of windows-of-interest in remote sensing scenarios”, in *Satellite Data Compression, Communication, and Processing V (OP 504)*, Optical Engineering + Applications Symposium, Remote Sensing Instrumentation Program Track, SPIE Optics and Photonics, San Diego, California, USA, 2-4 August 2009. Vol. 7455.
ISSN: 0277-786X/09.
Authors: José Lino Monteagudo-Pereira, Joan Bartrina-Rapesta, Francesc Auli-Llinas, Joan Serra-Sagristà.
46. “Interactive decoding of spectrally wavelet-transformed hyperspectral data”, in *Satellite Data Compression, Communication, and Processing IV (OP404)*, Optical Engineering + Applications Symposium, Remote Sensing Instrumentation Program Track, SPIE Optics and Photonics, San Diego, California, USA, 10-14 August 2008. Vol. 7084.
ISBN: 978-0-8194-7304-2.
Authors: José Lino Monteagudo-Pereira, Joan Bartrina-Rapesta, Francesc Auli-Llinàs, Joan Serra-Sagristà, Alaitz Zabala, Xavier Pons.
47. “Image compression effects in visual analysis”, in *Satellite Data Compression, Communication, and Processing IV (OP404)*, Optical Engineering + Applications Symposium, Remote Sensing Instrumentation Program Track, SPIE Optics and Photonics, San Diego, California, USA, 10-14 August 2008. Vol. 7084.
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Authors: F.García, J.Serra-Sagristà, A.Zabala, X.Pons.
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Authors: A.Zabala, X.Pons, F.Auli-Llinàs, J.Serra-Sagristà.
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Authors: F.García, F.Aulí, J.Serra-Sagristà.

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ISBN: 960-8457-37-8.
Authors: M.Bras-Amoros, J.Gonzalez-Conejero, P.Guitart-Colom, J.Serra-Sagristà and F.Garcia-Vilchez.
52. "Wavelet-based coding of Ultraspectral Sounder Data", in *Satellite Data Compression, Communications, and Archiving*, Society of Photo-optical Instrumentation Engineers (SPIE), Volume 5889, edited by Bormin Huang, Roger W. Heymann, Charles C. Wang, pp. 177-186. San Diego, California, USA. August 2005.
ISBN: 0-8194-5969-0.
Authors: F.Garcia-Vilchez, J.Serra-Sagristà and F.Aulí-Llinàs.
53. "Novel JPEG2000 implementation applied to GIS scenarios", in *Mathematics of Data/Image Coding, Compression, and Encryption VIII, with Applications*, Society of Photo-optical Instrumentation Engineers (SPIE), Volume 5915, edited by Mark S. Schmalz, pp. 159-168. San Diego, California, USA. August 2005.
ISBN: 0-8194-5972-0.
Authors: F.Aulí-Llinàs, J.Monteagudo-Pereira, J.Bartrina-Rapesta, J.Ramon Paton-Martin and J.Serra-Sagristà.
54. "Effects of JPEG2000 lossy compression on remote sensing image classification for mapping natural areas", en *9th WSEAS International Multiconference CSCC: CIRCUITS'05, SYSTEMS'05, COMPUTERS'05, COMMUNICATIONS'05*, edited by Nikos E. Mastorakis and Kostas Passadis. Athens, Greece. July 2005.
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55. "Evaluation of 1D, 2D, and 3D SPIHT coding technique for remote sensing", in *Image and Signal Processing for Remote Sensing X*, Society of Photo-optical Instrumentation Engineers (SPIE), Volume 5573, edited by Lorenzo Bruzzone, pp.273-283. Gran Canaria, Spain. November 2004.
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57. "Evaluation of Still Image Coders Applied to Remote Sensing Applications", in *IEEE Sensor Array and Multichannel Signal Processing Workshop*, CD-ROM. Sitges (Barcelona), Spain. July 2004.
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Authors: J.Serra-Sagristà, F.Aulí, F.Garcia, J.Gonzalez and P.Guitart.
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Authors: J.Serra-Sagristà, C.Fernandez, F.Garcia and F.Aulí.

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Authors: J.Serra-Sagristà, C.Fernandez, F.Aulí, F.Garcia and J.Minguillon.
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ISBN: 0-8194-5121-5.
Authors: J.Minguillon, J.Herrera, D.Megias and J.Serra-Sagristà.
61. "Analysis of Lossy Compression Methods Applied to Hyperspectral Images", in *Image and Signal Processing for Remote Sensing VIII*, Volume 4885, pp.389-400. Crete, Greece. September 2002.
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Authors: J.Serra-Sagristà, D.Gavilan and J.Minguillon.
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Authors: J.Serra-Sagristà and J.Borrell.
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Author: Joan Serra.

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Authors: Joan Serra-Sagristà, Joan Borrell.
69. "Securing the itinerary of mobile agents through a non-repudiation protocol", in *33rd Annual International Carnahan Conference on Security Technology*, pp.461-464. Madrid, Spain. 1999
ISBN: 0-7803-5247-5.
Authors: J. Borrell, S. Robles, J. Serra-Sagristà and A. Riera.
70. "Counting lattice points", in *AGC 98, International Conference on Combinatorial Methods in Mathematics*. Porto, Portugal. July, 1998.
Author: J. Serra-Sagristà.
71. "Neural Networks as decoders in error-correcting systems for digital data transmission", in *Computational Learning and Probabilistic Reasoning* edited by A. Gammerman. Proceedings of UNICOM' 1995, ADT Conferences. London, England. 1995.
Author: Joan Serra.
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Authors: Joan Serra-Sagristà, Inma Ortuño.
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Authors: Joan Serra, Inma Ortuño.
74. "A Single-Layer High-Order Perceptron for Decoding Reed-Solomon Codes", in Proceedings of CODIGRAF'93. 2nd Workshop on Combinatorics, Coding and Graph Theory. Platja d'Aro-Barcelona, Spain, 1993.
Authors: Joan Serra, Inma Ortuño.

5.6 Dissemination and Public Outreach Activities

1. H2020 ClearFarm Practice Abstract: "Machine learning for Mastitis and Acidosis Detection in Dairy Cows". On-line. July 3, 2023.
2. Innovative Data Infrastructure Forum. Invited Talk: "Global Data Compression Competition". Munich, Germany. May 24, 2023.
3. H2020 ClearFarm Practice Abstract: "Machine Learning for Precision Livestock Farming". On-line. January 31, 2023.
4. International Workshop on On-Board Payload Data Compression. Keynote Talk: "Contributions from UAB-GICI to Remote Sensing Data Compression". Athens, Greece. September 30, 2022.
5. The Institute of Space Studies of Catalonia. Forum. Invited Talk: "Remote Sensing Data Compression". Barcelona, Catalonia. June 2, 2022.

6. Catalan Society of Mathematics. Mathematics International Day. Workshop "The mathematics of images". Invited Talk: "Image compression". Barcelona, Catalonia & On-line. March 19, 2022.
7. Activities on image coding for EU FP7 Geo-Pictures project. Kopernik TV Program, Network of local TVs. June 2010.
8. Rescue among disaster (in Spanish, Al rescate en las catástrofes); *Época Magazine*, Science and Health, pp. 1295. May 23, 2010.
9. Contributor to the "On-line Encyclopaedia of Integer Sequences", edited and updated by N.J.A.Sloane at <http://www.research.att.com/~njas/sequences>, on-line version of "The Encyclopedia of Integer Sequences" de N.J.A.Sloane and S.Plouffe, Academic Press, San Diego, 1995, 587 pp.
ISBN: 0-12-558630-2.

Lattice	Sequence
E_8	10368 and 10369
BW_{16}	35596
\mathbb{Z}^{11} to \mathbb{Z}^{50}	35706 to 35745
D_9 to D_{50}	35746 to 35787
D_{10}^*	45758
D_{24}^* to D_{100}^*	35797 to 35835
A_{10} to A_{50}	35836 to 35876
D_2^+ to D_{100}^+	35877 to 35926

10. NP-Completeness

Technical report UCCD (UAB) 4/93.

Author: Joan Serra.

6 Doctorate Research

1. PhD Thesis: "Lattice Points Enumeration using the l_1 norm".

Computer Science Department at Universitat Autònoma de Barcelona.

PhD Thesis adviser: Joachim M.Buhmann, University of Bonn, Germany.

Tutor: Inmaculada Ortuño Ortín, UAB.

Date of Public Defense: December 1999.

Qualification: Excellent Cum Laude

Dissertation Committee:

- | | |
|----------------------|---|
| Prof. Josep Rifà | U. Autònoma de Barcelona, Spain |
| Prof. Paul Bourret | Centre Nationale d'Etudes Spatiales, CNES, France |
| Prof. Marc Noy | U. Politècnica de Catalunya, Spain |
| Prof: Manuel Graña | U. País Vasco, Spain |
| Prof. Joaquim Borges | U. Autònoma de Barcelona, Spain |

ISBN: 84-490-1815-3.

2. Design, development and implementation of a "Still image and video compression system for very-low bit-rate transmission lines" sponsored by the German Federal Ministry for Education, Sciences and Technology (BMBF), (reference 01 M 3021 A/4), and by Siemens AG, Munich.

Participants: J.M.Buhmann, H.Klock, A.Polzer, J.Serra.

Period: 1997-1999.

3. Master Thesis: "Neural Networks as decoders for Reed-Solomon Codes".

Computer Science Department at Universitat Autònoma de Barcelona.

Master Thesis supervisor: Inmaculada Ortuño Ortín, UAB.

Qualification: Excellent with Honors

Public defense in September 1994.

7 Conferences

Oral communications presented at conferences

1. Communication title: "Rice-Marlin Codes: Tiny and Efficient Variable-to-Fixed Codes"

Conference: IEEE Data Compression Conference.

Place and date: Snowbird, Utah, USA, March 2019.

2. Communication title: "Inpainting-based Remote Sensing Data Compression"

Invited Talk.

Conference: Dagstuhl Seminar 16462 on Inpainting-Based Image Compression.

Place and date: Schloss Dagstuhl, Germany, November 2016.

3. Communication title: "Remote Sensing Data Compression"

Keynote Talk.

Conference: RecPad2016, Associação Portuguesa de Reconhecimento de Padrões (APRP).

Place and date: Aveiro, Portugal, October 2016.

4. Communication title: "Coding Scheme for the Transmission of Satellite Imagery"

Conference: IEEE Data Compression Conference.

Place and date: Snowbird, Utah, USA, March 2016.

5. Communication title: "Computed Tomography Image Coding through Air Filtering in the Wavelet Domain" and "Diagnostically Lossless Compression of X-ray Angiographic Images through Background Suppression"

Conference: IEEE Data Compression Conference.

Place and date: Snowbird, Utah, USA, March 2013.

6. Communication title: "Joint Source/Channel Coding in 3D-JPEG2000 for Wireless 3D Region of Interest Transmission in 3D Medical Imaging Data"

Conference: 8th IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob 2012).

Place and date: Barcelona, Spain, 8-10 October 2012.

7. Communication title: "Proposal based on POT+WaterFilling+CCSDS-122"
Conference: Multi/Hyper-spectral Data Compression Working Group. CCSDS Fall Meeting 2011.
Place and date: Boulder, Colorado, USA. 29 October - 3 November 2011.
8. Communication title: "Compresión escalable y transmisión y procesado interactivo de imágenes masivas."
Conference: Jornadas de Seguimiento de Proyectos Tecnologías de Servicios de la Sociedad de la Información. Plan Nacional I+D+I 2008-2011.
Place and date: La Laguna, Tenerife, Las Canarias, Spain. 8 September 2011
9. Communication title: "Grupo de Compresión Interactiva de Imágenes (GICI)."
Conference: Workshop Connect-EU. Medical Technologies.
Place and date: Agència d'Informació, Avaluació i Qualitat, Barcelona. 20 may 2011.
10. Communication title: "Grupo de Compresión Interactiva de Imágenes (GICI)."
Conference: Reunión de la Red Temática en Codificación y Transmisión de Contenidos Multimedia. Tecnologías de Servicios de la Sociedad de la Información. Plan Nacional I+D+I 2008-2011.
Place and date: Valencia (Spain). September 9, 2010
11. Communication title: "Grupo de Compresión Interactiva de Imágenes (GICI)."
Conference: Reunión de la Red Temática en Codificación y Transmisión de Contenidos Multimedia. Tecnologías de Servicios de la Sociedad de la Información. Plan Nacional I+D+I 2008-2011.
Place and date: A Corunya (Spain). 6 July 2010
12. Communication title: "Compression of medical digital images"
Conference: I Workshop on R+D+i in ICT and Health in Catalonia.
Place and date: Girona, Catalunya. 13 May 2010
13. Communication title: "Encoding scheme for multi-component images containing No-Data regions"
Conference: IEEE International Conference on Image Processing.
Place and date: El Cairo, Egypt. 7-10 November 2009
14. Communication title: "Grupo de Compresión Interactiva de Imágenes (GICI)."
Conference: Reunión de la Red Temática en Codificación y Transmisión de Contenidos Multimedia. Tecnologías de Servicios de la Sociedad de la Información. Plan Nacional I+D+I 2004-2007.
Place and date: Barcelona. 27 November 2008
15. Communication title: "Compresión y Transmisión Interactiva de Imágenes de Alta Resolución. Aplicaciones en Teledetección, Sistemas de Información Geográfica, y en Telemedicina."
Conference: Jornadas de Seguimiento de Proyectos Tecnologías de Servicios de la Sociedad de la Información. Plan Nacional I+D+I 2004-2007.
Place and date: Alcalá de Henares, Spain. 15 September 2008

16. Communication title: "JPEG2000: Quality Scalability and Windows of Interest Transmission".
Invited Conference.
Conference: Asilomar Conference 2007.
Place and date: Asilomar Conference Grounds, Monterey, California, USA. 4-7 November 2007
17. Communication title: "Interactive Decoding for the CCSDS Recommendation for Image Data Compression".
Conference: SPIE Europe Remote Sensing 2007.
Place and date: Florence, Italy. 17-20 September 2007
18. Communication title: "Implications of JPEG2000 lossy compression on multiple regression modeling".
Conference: SPIE Europe Remote Sensing 2007.
Place and date: Florence, Italy. 17-20 September 2007
19. Communication title: "On Sign Encoding and Magnitude Refinement of Still Images".
Conference: WSEAS International Conference on Remote Sensing
Place and date: Venice, Italy. 2-6 November 2005
20. Communication title: "Compresión de Imágenes Hiperespectrales mediante Transformadas Wavelet para Aplicaciones de Teledetección y Sistemas de Información Geográfica"
Conference: Jornadas de Seguimiento de Proyectos TIC. Plan Nacional I+D+I 2004-2007.
Place and date: Gandia, Valencia, Spain. 15-16 September 2005
21. Communication title: "J2K: introducing a novel JPEG2000 coder".
Conference: SPIE Visual Communications and Image Processing.
Place and date: Beijing, China. 12-15 July 2005
22. Communication title: "Evaluation of Still Image Coders for Remote Sensing Applications".
Conference: Third IEEE Sensor Array and Multichannel Signal Processing Workshop
Place and date: Sitges (Barcelona). 19-21 July 2004.
23. Communication title: "A Public Domain Tool for Wavelet Image Coding for Remote Sensing and GIS Applications".
Conference: Internet Global Congress / INET.
Place and date: Barcelona. 10-14 May 2004.
24. Communication title: "Lossy coding techniques for high resolution images".
Conference: SPIE Remote Sensing. Image and Signal Processing for Remote Sensing IX (RS07).
Place and date: Barcelona. September 2003.
25. Communication title: "Exploring image coding techniques for remote sensing and geographic information systems".
Conference: SPIE Visual Communications and Image Processing.
Place and date: Lugano, Switzerland. July 2003.

26. Communication title: "Development of hyperspectral images processing techniques for remote sensing: coding and compression, pattern recognition, transmission and cooperation through Internet. Project TIC2000-0739-C04-01".
Conference: Jornadas de Seguimiento de Proyectos TIC. Plan Nacional I+D+I 2000-2003.
Place and date: Alcalá de Henares, Spain. 13 September 2002.
27. Communication title: "A comparison of lossy compression methods on still and hyperspectral images".
Conference: SPIE Annual Meeting. Mathematics of Data/Image Coding, Compression and Encryption V.
Place and date: Seattle, Washington, USA. July 2002.
28. Communication title: "Enumeration of Leech lattice points in L1-norm".
Conference: II Jornades de Matemàtica Discreta i Algorísmica.
Place and date: Ciutat de Palma, Mallorca, Spain. September 2000.
29. Communication title: "Influence of lossy compression on classification of hyperspectral images."
Invited conference.
Conference: First International Symposium on Hyperspectral Analysis.
Place and date: Cáceres, Extremadura, Spain. September 2000.
30. Communication title: "Lattice points enumeration for image coding".
Conference: IEEE International Conference on Information, Intelligence and Systems.
Place and date: Bethesda, Maryland, USA. November, 1999.
31. Communication title: "On combinatorial equalities of coordination sequences".
Conference: FPSAC 99, International Conference on Formal Power Series and Algebraic Combinatorics.
Place and date: Barcelona, Catalunya. Junio, 1999.
32. Communication title: "Counting lattice points".
Conference: AGC 98, International Conference on Combinatorial Methods in Mathematics.
Place and date: Porto, Portugal. July, 1998.
33. Communication title: "Digital data transmission error-correcting by neural networks".
Conference: EANN 95, Int. Conference on Engineering Applications of ANN.
Place and date: Espoo, Helsinki, Finland. August, 1995.
34. Communication title: "Neural Networks in Digital Data Transmission".
Conference: IWANN 95, Int. Workshop on ANN
Place and date: Torremolinos, Malaga, Spain. June, 1995.
35. Communication title: "Neural Networks as decoders in error-correcting systems for digital data transmission".
Conference: ADT 95, UNICOM Seminars Ltd.
Place and date: Brunel Science Park, Uxbridge, London, England. March, 1995.

36. Communication title: "HighOrder Perceptrons for Decoding ReedSolomon Codes".
Conference: 2nd Workshop on Combinatorics, Coding and Graph Theory
Place and date: Platja d'Aro, Spain. September, 1993.

Attendance

1. Conference: IEEE Data Compression Conference.
Activity: Program Committee Chair.
Place and date: Snowbird, Utah, (USA). March, 2024.
2. Conference: IEEE Data Compression Conference.
Activity: Program Committee Chair.
Place and date: Snowbird, Utah, (USA). March, 2023.
3. Conference: IEEE Data Compression Conference.
Activity: Program Committee Chair.
Place and date: Snowbird, Utah, (USA). March, 2022.
4. Conference: IEEE Data Compression Conference.
Activity: Program Committee Chair.
Place and date: Remote. March, 2021.
5. Conference: IEEE Data Compression Conference.
Activity: Program Committee Chair.
Place and date: Remote. March, 2020.
6. Conference: IEEE Data Compression Conference.
Activity: Program Committee Chair.
Place and date: Snowbird, Utah, (USA). March, 2019.
7. Conference: IEEE Data Compression Conference.
Activity: Program Committee Chair.
Place and date: Snowbird, Utah, (USA). March, 2018.
8. Conference: IEEE Data Compression Conference.
Activity: Program Committee Chair.
Place and date: Snowbird, Utah, (USA). April, 2017.
9. Conference: Dagstuhl Seminar on Inpainting-Based Image Compression.
Activity: Invited Talk.
Place and date: Schloss Dagstuhl, Germany, November 2016.

10. Conference: RecPad2016, Associação Portuguesa de Reconhecimento de Padrões (APRP). Associação Portuguesa de Reconhecimento de Padrões (APRP).
Activity: Keynote Talk.
Place and date: Aveiro, Portugal, October 2016.
11. Conference: IEEE Data Compression Conference.
Activity: Program Committee Chair.
Place and date: Snowbird, Utah, (USA). March, 2016.
12. Conference: IEEE Data Compression Conference.
Activity: Program Committee Chair.
Place and date: Snowbird, Utah, (USA). April, 2015.
13. Conference: IEEE International Conference on Image Processing.
Activity: Special Session Organizer.
Place and date: Paris, France. November, 2014.
14. Conference: IEEE Data Compression Conference.
Activity: Program Committee Chair and Session Chair.
Place and date: Snowbird, Utah, (USA). March, 2014.
15. Conference: IEEE Data Compression Conference.
Activity: Program Committee Chair and Session Chair.
Place and date: Snowbird, Utah, (USA). March, 2013.
16. Conference: IEEE Data Compression Conference.
Activity: Program Committee member and Session Chair.
Place and date: Snowbird, Utah, (USA). March, 2012.
17. Conference: IEEE Data Compression Conference.
Activity: Program Committee member and Session Chair.
Place and date: Snowbird, Utah, (USA). March, 2011.
18. Conference: Jornada Connect-EU. Boosting R+D collaborative projects in Europe.
Place and date: World Trade Center, Barcelona. 22-23 September 2010.
19. Conference: IEEE Data Compression Conference.
Activity: Session Chair.
Place and date: Snowbird, Utah, (USA). March, 2010.
20. Conference: IEEE International Conference on Image Processing.
Place and date: Cairo, Egypt. November, 2009.

21. Conference: IEEE Data Compression Conference.
Activity: Session Chair.
Place and date: Snowbird, Utah, (USA). March, 2009.
22. Conference: IEEE Data Compression Conference.
Activity: Session Chair.
Place and date: Snowbird, Utah, (USA). March, 2008.
23. Workshop: Estudios de Doctorado en el Marco de la Unión Europea.
Place and date: Universitat Autònoma de Barcelona, January 2008.
24. IV Foro de Evaluación de la Calidad de la Investigación y de la Educación Superior.
Place and date: Granada, España, del 22-26 de October de 2007.
25. Conference: IEEE International Geoscience and Remote Sensing Symposium (IEEE IGARSS 2007).
Activity: Session Co-chair "Information Systems and GIS", Chair: Hampapuram Ramapriyan, NASA Goddard Space Flight Ctr. (USA).
Place and date: Barcelona, (Spain). July, 2007.
26. Conference: Data Compression Conference.
Place and date: Snowbird, Utah, (USA). March, 2006.
27. Conference: Jornada Científica Real Sociedad Matemática Española. Telecomunicaciones y Matemáticas.
Place and date: Universitat Politècnica de Catalunya, Barcelona, 8 June 2005.
28. Conference: Workshop on Texture Analysis.
Place and date: Institute of Photometry, Bonn, Germany. May, 1998.
29. Conference: NATO ASI Course: "Generalization in Neural Networks and Machine Learning".
Place and date: Institute Isaac Newton. Cambridge, Great Britain. August, 1997.
30. Conference: IEEE European Workshop on Computational Intelligence, NEuroFuzzy.
Place and date: Prague, Czech Republic. April, 1996.
31. Conference: European Symposium on Neural Networks, ESANN.
Place and date: Brussels, Belgium. April, 1995.
32. Conference: EuroCOLT. "Computational Learning and Theory".
Place and date: Universitat Politècnica de Catalunya, Barcelona, Catalonia. March, 1995.
33. Conference: ALCOM II ESPRIT Project. "ALCOM Summer School on Computational Complexity".
Place and date: Centre de Recerca Matemàtica. Barcelona. September 1994.
34. Conference: 1st European Summer School. "Artificial Neural Networks and their Applications".
Place and date: Fundació Bosch i Gimpera. Barcelona. July 1994.
35. Conference: Summer School on "Artificial Neural Networks".
Place and date: Universidad de Alcalá de Henares. Alcalá (Madrid). July 1993.

8 Patents and Utility Models

1. FFLX

i-DEPOT Number: 145317, Benelux Office for Intellectual Property. Date: 1 February 2024

Copyright Holder: Universitat Autònoma de Barcelona, NIF: Q0818002H; Institute of Space Studies of Catalonia (IEEC)

Authors: Miguel Hernández-Cabronero, Ian Blanes Garcia, Joan Bartrina-Rapesta, Joan Serra-Sagristà.

2. Prototype of an alternative pipeline for CCSDS 124.0

i-DEPOT Number: 120779, Benelux Office for Intellectual Property. Date: 10 December 2019

Copyright Holder: Universitat Autònoma de Barcelona, NIF: Q0818002H

Authors: Miguel Hernández-Cabronero, Ian Blanes Garcia, Joan Bartrina-Rapesta, Joan Serra-Sagristà.

3. LCNL

i-DEPOT Number: 112385, Benelux Office for Intellectual Property. Date: 13 July 2018

Copyright Holder: Universitat Autònoma de Barcelona, NIF: Q0818002H

Authors "'Low Complexity Near Lossless": Ian Blanes Garcia, Joan Serra-Sagristà.

4. UAB-CNES-2015-MHDC-PACKAGE-2

i-DEPOT Number: 0649291, Benelux Office for Intellectual Property. Date: 13 December 2015

Copyright Holder: Universitat Autònoma de Barcelona, NIF: Q0818002H

Authors "White Book, Reference Software, Reliable Test Bitstreams": Ian Blanes Garcia, Joan Serra-Sagristà.

5. UAB-CNES-2015-MHDC-PACKAGE

i-DEPOT Number: 064093, Benelux Office for Intellectual Property. Date: 8 May 2015

Copyright Holder: Universitat Autònoma de Barcelona, NIF: Q0818002H

Authors "White Book, Reference Software, Reliable Test Bitstreams": Ian Blanes Garcia, Joan Serra-Sagristà.

6. UAB-CNES-2014-MHDC-PACKAGE

i-DEPOT Number: 058456, Benelux Office for Intellectual Property. Date: 13 September 2014

Copyright Holder: Universitat Autònoma de Barcelona, NIF: Q0818002H

Authors "White Book, Reference Software, Reliable Test Bitstreams": Ian Blanes Garcia, Maxime Frydman, Joan Serra-Sagristà.

7. UAB-CNES-2013-MHDC-PACKAGE

i-DEPOT Number: 052103, Benelux Office for Intellectual Property. Date: 12 December 2013

Copyright Holder: Universitat Autònoma de Barcelona, NIF: Q0818002H

Authors "White Book, Reference Software, Reliable Test Bitstreams": Ian Blanes Garcia, Maxime Frydman, Joan Serra-Sagristà.

8. UAB-CNES-2012-MHDC-SOFTWARE-PACKAGE

i-DEPOT Number: 042108, Benelux Office for Intellectual Property. Date: 18 December 2012

Copyright Holder: Universitat Autònoma de Barcelona, NIF: Q0818002H

Authors "MHDC SOFTWARE PACKAGE": Ian Blanes Garcia, Pau Rodriguez Lopez, Jose Enrique Sanchez Moral, Joan Serra-Sagristà.

9. "Suit de software de Compresión GICI"

Number 365, Notary Joan Francesc Bages Ferrer, Barcelona. Date: 7 March 2012

Copyright Holder: Universitat Autònoma de Barcelona, NIF: Q0818002H

Authors Software: Estanislau Auge Pujadas, FRancesc Auli Llinas, Joan Bartrina Rapesta, Ian Blanes Garcia, Cristina Fernandez Cordoba, Fernando Garcia Vilchez, Jorge Gonzalez Conejero, Miguel Hernandez Cabronero, Leandro Jimenez Rodriguez, Jose Lino Monteagudo Pereira, Juan Muñoz Gomez, Jose Enrique Sanchez Moral, Josep Santalo Jordana, Joan Serra-Sagristà, Zhongwei Xu.

Authors "Multicomponent compression algorithm based on CCSDS 122.0 standard": Ian Blanes Garcia, Joan Serra-Sagristà

10. Implementation in JAVA of JPEG2000 image coding standard, approved by ISO IEC and ITU-T (Part 1, Core Coding System).

Available in <http://www.gici.uab.cat/BOI> Licence: GNU GPL.

This implementation is being used by:

– commercial software MiraMon (<http://www.creaf.uab.es/miramon/index.htm>)

– commercial software RAIM

(http://www.parctauli.cat/webcsptcastella/cimd/Productes/RAIM_Java.htm).

This implementation was awarded the Open Source Software Award by Generalitat de Catalunya, 2005.

11. Implementation in JAVA of Image Data Compression Recommendation, approved by Consultative Committee for Space Data Systems (CCSDS).

Available in <http://www.gici.uab.cat/TER>, and in SourceForge

<http://sourceforge.net/projects/ter> (Responsible : Fernando Garcia Vilchez; Registered : 2007-03-20), and in CCSDS list of available software

<http://cwe.ccsds.org/sls/docs/Forms/AllItems.aspx>

Licence: GNU GPL.

This implementation is one of the two single independent implementations of the CCSDS IDC Recommendation, and it is made available in the open-public servers from CCSDS.

Total number of downloads: 2,047 (until January 2019).

12. Implementation in JAVA of JPEG2000 image coding standard, approved by ISO IEC and ITU-T (Part 9, Interactive Protocol). Available in

<http://www.gici.uab.cat/CADI>, and in SourceForge

<http://sourceforge.net/projects/cadi> (Responsible : Jose Lino Monteagudo Pereira; Registered : 2007-10-03) Licence: GNU GPL.

Total number of downloads: 3,731 (until January 2019).

9 Taught Courses and Seminars

1. Seminar on “Compression of IASI data”.

Universitat Miguel Hernández - Elx, Spain.

18 November 2014.

2. Seminar on “JPEG2000 Parte 9 para compresión de imágenes digitales en medicina y codificación de regiones de interés”.

Centro de Imagen Médica Digital, Servicio de Diagnóstico Avanzado UDIAT, Corporación Sanitaria Parc Taulí, Sabadell.

14 October 2008.

3. Seminar on “JPEG2000 Parte 9 para compresión de imágenes digitales en medicina”.

- Centro de Imagen Médica Digital, Servicio de Diagnóstico Avanzado UDIAT, Corporación Sanitaria Parc Taulí, Sabadell.
22 November 2006.
4. Seminar on “Compresión de imágenes digitales en medicina”.
Centro de Imagen Médica Digital, Servicio de Diagnóstico Avanzado UDIAT, Corporación Sanitaria Parc Taulí, Sabadell.
12 April 2006.
5. Seminar on “Compresión de imágenes digitales en teledetección”.
Centro de Investigación Ecológica y Aplicaciones Forestales, UAB.
16 November 2005.
6. Seminar on Group on Interactive Coding of Images.
Departamento de Ingeniería de la Información y de las Comunicaciones Escola Tècnica Superior d’Enginyeria, Universitat Autònoma de Barcelona.
13 April 2005.
7. Seminar on “Hyperspectral Image Coding through Wavelet Transform applied to Remote Sensing and Geographic Information Systems (WaveGIS)”.
Dep. de Informàtica. Unidad de Combinatoria y Comunicación Digital, UAB.
31 March 2004.
8. Seminar on “Introduction to JPEG 2000 Still Image Compression Standard”.
1er encuentro del proyecto CICYT TIC2003-08604-C04-01. Escola Tècnica Superior d’Enginyeria, Universitat Autònoma de Barcelona.
February 2004.
9. Invited Conference on “Lossy coding techniques for high resolution images”.
Department of Signal Theory and Communications, Signal Processing Group. Universitat Politècnica de Catalunya
November 2003.
10. Invited Conference on “Técnicas avanzadas de clasificación de imágenes”.
Máster en Teledetección y Sistemas de Información Geográfica. Edificio Nexus, Institut d’Estudis Espacials de Catalunya, Barcelona.
March 2001, March 2003.
11. Invited Conference on “Internet y correo electrónico”, dentro del programa *La universitat a l’abast*.
Escuela Universitaria de Sabadell.
May 2001.
12. Seminar on “Compresión y clasificación de imágenes hiperespectrales”.
1er encuentro del proyecto CICYT TIC2000-0739-C04. Escola Tècnica Superior d’Enginyeria, Universitat Autònoma de Barcelona.
March 2001.

13. Seminar on "On coordination sequences and ν series of lattices".
Combinatorics and Digital Communications, Computer Science Dept., UAB.
March 1999.
14. Seminar on "Combinatorial equalities".
Institute for Informatics III. University of Bonn, Germany.
November 1998.
15. Seminar on "Counting lattice points".
Institute for Informatics III. University of Bonn, Germany.
June 1998.
16. Seminar on "Lattice Vector Quantization applied to Image Coding".
Institute for Informatics III. University of Bonn, Germany.
February 1998.
17. Seminar on "Lattice Vector Quantization".
Institute for Informatics III. University of Bonn, Germany.
January 1998.
18. Seminar on "An introduction to lattices".
Combinatorics and Digital Communications, Computer Science Dept., UAB.
January 1998.
19. Seminar on "An introduction to lattices".
Institute for Informatics III. University of Bonn, Germany.
December 1997.
20. Seminar on "Image Compression".
MACOHS Project, UAB.
April 1997.
21. Seminar on "Vector Quantization for Image Compression".
Combinatorics and Digital Communications, Computer Science Dept., UAB.
March 1997.
22. Seminar on "Vector Quantization. SOM convergence properties".
Combinatorics and Digital Communications, Computer Science Dept., UAB.
May 1996.
23. Seminar on "Computability and Complexity of Simple Binary Perceptrons".
Informatics System and Languages Dept., Computer Science Faculty. Universitat Politècnica de Catalunya, Spain.
October 1994.

24. Seminar on "Soft-Decision decoding by means of neural networks".
Combinatorics and Digital Communications, Computer Science Dept., UAB.
October 1994.
25. Seminar on "Reed-Solomon Codes decoding".
Combinatorics and Digital Communications, Computer Science Dept., UAB.
April 1994.
26. Seminar on "NP-Completeness".
Combinatorics and Digital Communications, Computer Science Dept., UAB.
April 1993.
27. Seminar on "Calcul de polynômes irréductibles et primitifs sur un corps fini".
Université Claude-Bernard, Lyon, France.
March 1992.

10 Attended Courses, Seminars and Meetings

1. Organization: Combinatorics and Digital Communications, Computer Science Department., UAB.

Seminars:

- "Concatenation construction for Reed-Muller-like codes"
Prof. Faina Solov'eva, Sobolev Institute of Mathematics, Novosibirsk. Russia.
Date: June 2006.
- "Half a century of algebraic coding theory - a quick overview"
Prof. Thomas Ericson, Dept. of Electrical Engineering, Linköping University, Sweden.
Date: May 2005.
- "Compression of Hyperspectral Images with Preemphasis of Discriminant Features"
Prof. Chul-Hee Lee, Yonsei University, South Korea.
Date: October 2004.
- "Actividades en Teledetección y SIG en el CREAM y en el Dep. de Geografía de la UAB"
Prof. Xavier Pons, UAB, CREAM.
Date: May 2004.
- "Presentación de las actividades del grupo de imagen de la UPC"
Prof. Philippe Salembier, UPC.
Date: April 2004.
- "Almost Perfect Nonlinear (APN) functions and codes"
Prof. Kevin T. Phelps, U. Auburn (Alabama), USA.
Date: December 2001.

- “Graphical Invariants for Perfect Codes”
Prof. Italo J. Dejter, Univ. Puerto Rico, USA.
Date: October 2001.
- “On concatenated and generalized concatenated codes”
Prof. Victor Zinoviev, Russian Academy of Sciences, Moscow, Russia.
Date: March 2000.
- “A distributed and decentralized architecture for control of connection admission to a telecommunication network”
Prof. John Bigham, London University, Great Britain.
Date: January 2000.
- “On new lower bounds for Kissing (contact) numbers for small dimensions”
Prof. Victor Zinoviev, Russian Academy of Sciences, Moscow, Russia.
Date: January 1999.
- “Perfect codes and code equivalence”
Prof. Kevin T. Phelps, U. Auburn (Alabama), USA.
Date: January 1999.
- “The Minimax Distortion Redundancy”
Prof. Gabor Lugosi, U. Pompeu Fabra, Catalonia / UCSD, California, USA.
Date: March 1997.
- “Covering Codes and Perfect Domination in Graphs”
Prof. Italo J. Dejter, Univ. Puerto Rico, USA.
Date: February 1997.
- “Perfect Dominating Sets”.
Prof. Italo J. Dejter, Univ. Puerto Rico, USA.
Date: October 1995.
- “IT Security Standardization with Emphasis on Security Evaluation Criteria”.
Prof. Svein Knapskog, Univ. Trondheim, Norway.
Date: July 1995.
- “On uniquely Decodable Codes”.
Prof. Gérard Cohen, Telecom-Paris, France.
Date: June 1995.
- “Dimensionality of Graphs”.
Prof. Paul Weichsel, Univ. Urbana-Champaign, USA.
Date: April 1994.
- “The Threshold Probability of a Code”.
Prof. Gérard Cohen, Telecom-Paris, France.
Date: November 1992.
- “Covering Radius, Lattices and Graphs”.
Prof. Patrick Solé, CNRS, France.
Date: May 1992.

2. Workshop on Challenges at the university in the Biosciences sector.

Agència per a la Qualitat del Sistema Universitari de Catalunya (AQU). Universitat Autònoma de Barcelona.
November 2019.

3. Workshop on Opportunities for European funding for the topics on Health and Bioinformatics.

Universitat Autònoma de Barcelona.
July 2019.

4. Seminar on "Image Processing", by Eric Petajan, Bell Laboratories, New Jersey, USA.

Univ. del País Vasco, EHU. San Sebastian, Spain. March 1996.

5. Organization: Educational Science Institute (IDES), UAB.

Workshop:

- "Aprentatges actius en grups nombrosos".
February 2020.
- "Millorar l'expressió escrita dels alumnes de matèries no lingüístiques".
June 2016.
- "Prevenió del risc en treballs amb esforç vocal", EGARSAT.
March 2016.
- "Elaboració de rúbriques" by Dr. Josep Alsina Masmitjà, Universitat de Barcelona.
February 2016.
- "La docència en el nou context d'ensenyament-aprenentatge" by Dr. José Tejada Fernández, Universitat Autònoma de Barcelona.
January 2016.
- "Digital smartboard", by David Marin Perez, Albert Ruiz Cirera, Josep Maria Burgues Badia, Universitat Autònoma de Barcelona.
July 2011.
- "Recursos y Estrategias para el PDI que imparte docencia en inglés", by Eleonora Alexandra Vraciu, Universitat Autònoma de Barcelona.
January 2009.
- "El WIKI com a eina d'aprenentatge dins l'EEES", by Grupo IDES-Wiki, Universitat Autònoma de Barcelona.
January 2007.
- "Prácticas del discurso oral en el ámbito académico: estrategias de comunicación en el aula", by Anna Cros y Montserrat Vilà, Universitat Autònoma de Barcelona.
July 2006.
- "Taller de diseño de programas desde la perspectiva de los ECTS", by Amparo Fernández y Pilar Cáceres, Universidad Politécnica de Valencia.
January 2006.
- "Lideraje para la gestión del cambio hacia el Espacio Europeo de Educación Superior", by Josep Coll y Francesc Solé Parellada, Dept. de Organización de Empresas, Universitat Politècnica de Catalunya.
July 2005.

- “Foniatría. Educación de la voz”, by Cecilia Gasull, Dep. de Didáctica de la Expresión Musical, Plástica y Corporal (UAB).
February 2005.
- “Foniatría. Educación de la voz”, by Montserrat Martorell, Dep. de Didáctica de la Expresión Musical, Plástica y Corporal (UAB).
June 2004.
- “L’escriptura. Eficàcia, correcció i agilitat”, by Anna Bartra, Dep. Filologia Catalana (UAB).
January 1997.
- “La comunicació no verbal dins de l’activitat docent”, by Antoni Castelló, Dep. Psicologia (UAB).
February 1996.

6. Symposium on “Open problems in Science: from now to the end of the century”.

Science Faculty, UAB. Spain.

November 1993.

7. Workshop on “Language, Cognition and Computation”.

Institut d’Estudis Catalans & Fundació Catalana per a la Recerca. Barcelona, Spain.

November 1993.

8. Courses from the PhD Program “Graphics, Digital Images and Artificial Intelligence” in the Computer Science Dept., at UAB.

- “Cryptography and cryptographic systems”
- “Design and analysis of algorithms”
- “Graphs: structure and applications”
- “VLSI neural networks”
- “Digital coding of images”
- “Expert Systems: approximate reasoning”
- “Cellular neurobiology”
- “Problems and methods in biology”

Courses: 1992-93 and 1993-94.

9. Monographic courses from “Maîtrise de Mathématiques Discrètes” in the “Institut de Mathématiques et Informatique”, at “Université Claude Bernard, Lyon I”, Lyon, Rhône-Alps, France:

- “Calcul Formel Avancé”
- “Intelligence Artificielle”
- “Théorie des Graphes”
- “Calculabilité effective”

January-June 1992.

11 Honors, Awards

1. Capocelli Prize- Best Paper Award at Data Compression Conference 2016.
2. Prize in UAB Ideas Generation Program 2015 (fourth edition). Three awards granted.
3. Grant from the “German Academic Exchange Service” (DAAD, German Federal Government) to participate in Science Tour 2014. 27 researchers awarded worldwide. January 2014.
4. First and sole European-based researcher to serve as Program Committee Co-Chair of the international conference IEEE Data Compression Conference (DCC) in its 30 years of existence. DCC is the most prestigious conference in the world on the topic of data coding. 2013-...
5. 2010 Best Reviewer Award. IEEE Transactions on Geoscience and Remote Sensing.
Communication from Prof. Christopher Ruf, Editor in Chief, IEEE TGARS. Director, Space Physics Research Laboratory, Professor of Atmospheric, Oceanic and Space Sciences and Electrical Engineering and Computer Science, University of Michigan, Ann Arbor, MI USA.
6. Fourth European-based researcher to serve as Program Committee Member of the international conference IEEE Data Compression Conference (DCC) (2009-...), the most prestigious in data coding. The first European was R. Capocelli (U. Rome, Italy), 1991-1992; the second European was R. Giancarlo (U. Palermo, Italy), 1996; the third European was B. Carpentieri (U. Salerno, Italy), 1997-2001.
7. First European researcher to serve as Conference Chair of the international conference SPIE “Satellite Data Compression, Communications, and Processing” (2008, 2010)
8. Grant awarded by Fundación Empresa Universidad from Universidad de Granada to attend IV Foro de Evaluación de la Calidad de la Investigación y de la Educación Superior. October 2007.
9. Award Young Researchers, Intensification Program, UAB-I3, B-I3INT2006-08. 10 awards granted in the first edition (Call 2006).
10. As responsible of the Group on Interactive Coding of Images, the Group has been awarded two prizes for the software developed:
 - (a) “La Farga” Open Source Software Prize (Generalitat de Catalunya) for the implementations in JAVA of
 - Integration of BOI + CADI in a single open source package
 - Development of a transcoder for JPEG2000
 - Viewer for medical images for a hand-held deviceBOI: Implementation in JAVA of JPEG2000 image coding standard, approved by ISO IEC and ITU-T (Part 1, Core Coding System).
CADI: Implementation in JAVA of JPEG2000 image coding standard, approved by ISO IEC and ITU-T (Part 9, Interactive Protocol).
Available in <http://www.gici.uab.cat/GiciWebPage/downloads.html>
Licence: GNU GPL. Receiver: J. Bartrina-Rapesta (2008).
 - (b) Open Source Software Prize (Generalitat de Catalunya) for the implementation in JAVA of JPEG2000 image coding standard, approved by ISO IEC and ITU-T (Part 1, Core Coding System).
Available in <http://www.gici.uab.cat/BOI>
Licence: GNU GPL. Receiver: F. Aulí-Llinàs (2005).

11. Grant from UAB to attend ICIIS'99, Bethesda, MD, USA, November 1999.
12. Grant from the Catalan savings bank "La Caixa d'Estalvis i Pensions de Barcelona" and the "German Academic Exchange Service" (DAAD) for a research stay with the Computer Vision and Pattern Recognition Group, U.Bonn, under the supervision of professor Joachim M. Buhmann. Germany. October 1997 - December 98.
13. Grant from UAB to attend AGC'98, Porto, Portugal, July 1998.
14. Grant from NATO Advanced Study Institute, to attend "Generalization in Neural Networks and Machine Learning" at the Isaac Newton Institute, in Cambridge, Great Britain. August 1997.
15. Award from the Catalan savings bank "Fundació de la Caixa de Sabadell" for a research stay. 1997.
16. Grant from NEuroNet, European 'Network of Excellence' in Neural Networks to attend NEuroFuzzy'96 in Prague, Czech Republic. 1996.
17. Grant from the Deutscher Akademischer Austauschdienst (DAAD) from the German Government, at the Goethe Institute in Rothenburg ob der Tauber, Germany. July-August 1995.
18. Grant from the Human Capital and Mobility Programme from the Commission of the European Communities to attend ESANN'95 in Brussels, Belgium. 1995.
19. Grant from UAB for an English Summer Course. July 1994.
20. Award ERASMUS from the European Communities to *promote the scientific exchange among youth*. "Maîtrise de Mathématiques Discrètes" at "Université Claude Bernard, Lyon-1", Lyon, France. January-June 1992.
21. Grant from the General Directorate for Grants from the Ministry of Education and Culture of the Spanish Government for Cooperation in Practical Courses at the Computer Science Dept., UAB. 1990-91.
22. Grant from the General Directorate for Grants from the Ministry of Education and Culture of the Spanish Government during the university studies 1987-92.

12 Activities in Small Enterprises

1. Consultant for the Consell Consultiu de la Generalitat de Catalunya in subjects of programming and computer equipment. Starting date: March 2001. End date: December 2003.
Amount granted: 8.660 Euros / year.
2. Consultant Professor at Universitat Oberta de Catalunya for the subject *Teoría de Autómatas y Lenguajes Formales 2* within the Computer Engineering Degree.
Starting date: February 2001. End date: June 2003.
3. Participant in a study of computer consulting for the Consell Consultiu de la Generalitat de Catalunya. 2000-01.
4. Company "Applications in Advanced Computer Science". Vallès Technological Park, Barcelona, Spain. 1991-92.

13 Research and Teaching Merits

13.1 Teaching

1. Evaluation of the individual Teaching Experience: sixth Five-year period, 2018-2022, awarded by Agència per a la Qualitat del Sistema Universitari de Catalunya, Generalitat de Catalunya.
2. Evaluation of the individual Teaching Experience: fifth Five-year period, 2013-2017, awarded by Agència per a la Qualitat del Sistema Universitari de Catalunya, Generalitat de Catalunya.
3. Evaluation of the individual Teaching Experience: fourth Five-year period, 2008-2012, awarded by Agència per a la Qualitat del Sistema Universitari de Catalunya, Generalitat de Catalunya.
4. Evaluation of the individual Teaching Experience: third Five-year period, 2003-2007, awarded by Agència per a la Qualitat del Sistema Universitari de Catalunya, Generalitat de Catalunya.
5. Examiner in the Official Exams for University Access (PAU - Selectividad).
Period: June 2005, June 2006.
6. Academic Position: Head of the Department of Information and Communications Engineering, UAB. Period: January 2018 -
7. Academic Position: Member of the Commission of Academic Staff, at Universitat Autònoma de Barcelona.
Appointment: April 2018; End date: May 2022.
8. Academic Position: Secretary of the Department of Information and Communications Engineering, UAB. Period: February 2012 - January 2018.
9. Academic Position: responsible of the Computer Science Department for the final career projects in collaboration with companies.
Period: April 2002 - January 2005.
10. Project on Teaching Innovation, "Micro-learning platform based on gamification", July 2018 - December 2019. Recognised as a good teaching practice by UAB. Main researcher: Sergi Robles Martínez. Amount granted: 1,000 euros.
11. Project on Teaching Innovation, "The challenge to teach to master foreign students", July 2017 - December 2018. Recognised as a good teaching practice by UAB. Main researcher: Joan Serra-Sagristà. Amount granted: 0 euros.
12. Participation in Programme Argo: supervision of Final Degree Project of High School Students.
 - (a) Course 2023-24: 2 students.
 - (b) Course 2022-23: 2 students.
 - (c) Course 2021-22: 2 students.
 - (d) Course 2020-21: 1 students.
 - (e) Course 2019-20: 3 students.
 - (f) Course 2018-19: 3 students.
 - (g) Course 2017-18: 3 students.

13. Project “European Consortium of Innovative Universities (ECIU)”

Project funded by the European Union.

Participants: UAB and another 10 European universities.

Length: from 2001 to 2002.

Researcher responsible: Dr. Joan Serra-Sagristà (UAB)

Amount granted: > 1 M euros

14. Postgraduate and Long-live Training School (UAB)

Degrees	Subject	Courses
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Cursos propios	Diseño y Mantenimiento de Webs	2000-04
	Diseño de páginas web	2001-04
Programa CITIUS	Internet y Correo Electrónico	1999-06
	Intranet y Diseño de páginas HTML	1999-06

15. Lecturer in several seminars organized by the Escuela de Organización Industrial del Baix Llobregat, funded by the European Social Fund. Cornellà de Llobregat.

- (a) Programa superior para mujeres emprendedoras. December 2000.
- (b) Programa superior de cooperación para el desarrollo. February 2001.
- (c) Programa superior de creación y desarrollo de empresas. May 2001.

13.2 Research

1. Examiner for the Polish National Science Foundation (FNP).
Appointment: 2018.
2. Examiner for the Agency for Administration of University and Research Grants, AGAUR, Generalitat de Catalunya.
Appointment: 2008.
3. Examiner for the National Evaluation and Foresight Agency, ANEP, Spain.
Appointment: 2010.
4. First six-year period of knowledge transfer, 2013-2018, awarded by National Commission for the Evaluation of the Research Activity, Dirección General de Investigación, Secretaría General de Política Científica y Tecnológica, Secretaría de Estado de Universidades e Investigación, Ministerio de Educación y Ciencia, Spain.
5. Fourth six-year period of research, 2013-2018, awarded by National Commission for the Evaluation of the Research Activity, Dirección General de Investigación, Secretaría General de Política Científica y Tecnológica, Secretaría de Estado de Universidades e Investigación, Ministerio de Educación y Ciencia, Spain.
6. Third six-year period of research, 2013-2018, awarded by Commission for the Accreditation of Research, in the field of Engineering and Architecture, Agency for Administration of University and Research Grants, AGAUR, Generalitat Catalunya.

7. Third six-year period of research, 2007-2012, awarded by National Commission for the Evaluation of the Research Activity, Dirección General de Investigación, Secretaría General de Política Científica y Tecnológica, Secretaría de Estado de Universidades e Investigación, Ministerio de Educación y Ciencia, Spain.
8. Second six-year period of research, 2007-2012, awarded by Commission for the Accreditation of Research, in the field of Engineering and Architecture, Agency for Administration of University and Research Grants, AGAUR, Generalitat Catalunya.
9. Second six-year period of research, 2001-2006, awarded by National Commission for the Evaluation of the Research Activity, Dirección General de Investigación, Secretaría General de Política Científica y Tecnológica, Secretaría de Estado de Universidades e Investigación, Ministerio de Educación y Ciencia, Spain.
10. First six-year period of research, 2001-2006, awarded by Commission for the Accreditation of Research, in the field of Engineering and Architecture, Agency for Administration of University and Research Grants, AGAUR, Generalitat Catalunya.
11. First six-year period of research, 1993-2000, awarded by National Commission for the Evaluation of the Research Activity, Dirección General de Universidades, Secretaría de Estado de Educación y Universidades, Ministerio de Educación, Cultura y Deporte, Spain.
12. Academic Position: Overseer of the Commission for the Academic Activity at Universitat Autònoma de Barcelona in subjects related to Postgraduate Studies.
Appointment: May 2007; End date: April 2008.
13. Academic Position: Member of the Academic Council of the Postgraduate School, and of the Council Plenary Commission, at Universitat Autònoma de Barcelona.
Appointment: March 2006; End date: February 2007.
14. Academic Position: Coordinator of the Doctorate Studies in Computer Science within the Official Postgraduate Program in Engineering, at Technical Superior School of Engineering, Universitat Autònoma de Barcelona. The Doctorate Studies in Computer Science have been awarded with the Acknowledgment of the Quality Award (2006-07, Reference MCD2006-00555; 2007-08, Reference MCD2007-00243 INGENIERIA - INFORMATICA; 2008-11, Reference MCD2007-00243 INGENIERIA - INFORMATICA; 2012-14, Reference MEE2011-0383 INGENIERIA - INFORMATICA). This Official Postgraduate Program has been approved by the Inter-University Council of Catalonia (9 February 2006).
Appointment: March 2006; End date: May 2009.
15. Academic Position: Coordinator of the Official Master in Advanced Computer Science within the Official Postgraduate Program in Engineering, at Technical Superior School of Engineering, Universitat Autònoma de Barcelona. The Master in Advanced Computer Science was one of the 33 Official Masters at UAB in the first year of their implementation, 2006-07. This Official Postgraduate Program has been approved by the Inter-University Council of Catalonia (9 February 2006).
Appointment: January 2006; End date: May 2009.
16. Academic Position: Coordinator of the Doctorate Program in Computer Science, Universitat Autònoma de Barcelona. Interdepartmental Doctorate Program. The Doctorate Program in Computer Science has been awarded with the Acknowledgment of the Quality Award (2005-06, Reference: MCD2005-00010).
Appointment: November 2005; End date: May 2009.
17. Academic Position: responsible of the Department of Information and Communications Engineering for the Postgraduate Studies.
Appointment: March 2005; End date: May 2009.

18. Examiner for the University of Warwick, United Kingdom.
Appointment: 2013.
19. Examiner for the Deutscher Akademischer Austausch Dienst (DAAD, Germany), the first private institution in the world in academic-related expenditure.
Appointment: 2015; End date: –.
20. Senior Area Editor of the journal *IEEE Transactions on Image Processing*, ISSN: 1057-7149, published by The Institute of Electrical and Electronics Engineers (IEEE).
Editor-in-Chief: Alessandro Foi, Tampere University Finland.
Editor-in-Chief: Benoit Macq UCLouvain-Belgium
Appointment: July 2022; End date: –.
21. Associate Editor of the journal *IEEE Transactions on Geoscience and Remote Sensing*, ISSN: 0196-2892, published by The Institute of Electrical and Electronics Engineers (IEEE).
Editor-in-Chief: Antonio Plaza, Universidad de Extremadura, Spain.
Editor-in-Chief: Simon Yueh, Jet Propulsion Laboratory, California Institute of Technology, USA.
Appointment: November 2016; End date: April 2023.
22. Associate Editor of the journal *IEEE Transactions on Image Processing*, ISSN: 1057-7149, published by The Institute of Electrical and Electronics Engineers (IEEE).
Editor-in-Chief: Thrasyvoulos N. Pappas, Electrical Engineering and Computer Science Northwestern University, USA.
Editor-in-Chief: William Clem Karl, Department of Electrical, Computer, and Systems Engineering Boston University, USA
Editor-in-Chief: Scott T. Acton, Department of Electrical and Computer Engineering University of Virginia, USA
Appointment: August 2011; End date: December 2015.
23. Associate Editor of the journal *SPIE Journal of Electronic Imaging*, ISSN: 1017-9909, co-published by SPIE and IS&T.
Editor-in-Chief: Karen Egiazarian, Tampere University of Technology, Finland.
Appointment: March 2019; End date: April 2023.
24. Associate Editor of the journal *Hindawi Mathematical Problems in Engineering*, ISSN: 1563-5147, published by Hindawi.
Editor-in-Chief: Guangming Xie, Peking University, China.
Appointment: January 2015; End date: April 2023.
25. Member of the *Editorial Board* of the journal *Electronic Letters on Computer Vision and Image Analysis*, ISSN: 1577-5097, published by the Computer Vision Center (CVC-UAB). Editors: Juan José Villanueva, Computer Vision Center - UAB, Spain and Horst Bunke, Univ. of Bern, Switzerland.
Date: 2006-2019.
26. Prize "Best Iberian PhD Thesis in Information Systems and Technologies". 2016. Member of the committee.
27. Prize "Best Iberian PhD Thesis in Information Systems and Technologies". 2015. Member of the committee.
28. Editor of Special Issue on "Compression Technologies for Medical Applications", E-letter, IEEE Communications Society. Vol. 6, No. 7, July 2011. Chonggang Wang and Kai Yang, Director and co-Director of MMTC E-Letter.
29. Referee of the journals

- (a) *Future Generation Computer Systems*, ISSN: 0167-739X, publisher Elsevier.
 Editor-in-Chief: Editor-in-Chief: Peter Sloot, Fac. of Science, Informatics Inst., Universiteit van Amsterdam, 1000 GG, Amsterdam, Netherlands.
 Date: 2019.
- (b) *International Journal of Remote Sensing*, ISSN: 0143-1161, publisher Taylor and Francis.
 Editor-in-Chief: Timothy A. Warner: West Virginia University, USA.
 Date: 2019.
- (c) *Remote Sensing*, ISSN: 2072-4292, publisher MDPI.
 Editor-in-Chief: Dr. Prasad S. Thenkabail, U. S. Geological Survey (USGS), Arizona, USA.
 Date: 2017-2018.
- (d) *International Journal of Digital Earth*, ISSN: 1753-8947, publisher Taylor & Francis.
 Editor-in-Chief: Guo Huadong, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Beijing, China.
 Executive Editor: Wang Changlin, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Beijing, China.
 Date: 2016.
- (e) *IEEE Transactions on Signal Processing*, ISSN: 1053-587X, publisher The Institute of Electrical and Electronics Engineers (IEEE).
 Editor-in-Chief: Ali H. Sayed, University of California, Los Angeles, USA.
 Associate Editor: Antonia Papandreou-Suppappola, Arizona State University, USA.
 Date: 2005-2007.
- (f) *IEEE Transactions on Image Processing*, ISSN: 1057-7149, publisher The Institute of Electrical and Electronics Engineers (IEEE).
 Editor-in-Chief: Jelena Kovacevic, EIC, XWaveforms, USA.
 Associate Editor: Anil Kokaram, Trinity College, Dublin, Ireland
 Associate Editor: Sohail Dianat, Rochester Institute of Technology, New York, USA
 Associate Editor: Tamas Sziranyi, Hungarian Academy of Sciences. Hungary
 Associate Editor: Jelena Kovacevic, EIC, XWaveforms, USA.
 Associate Editor: Minh N. Do, University of Illinois at Urbana-Champaign, USA
 Associate Editor: Jesus Malo, University of Valencia, Spain
 Associate Editor: Marios Pattichis, The University of New Mexico, USA
 Date: 2005-2014.
- (g) *IEEE Transactions on Geoscience and Remote Sensing*, ISSN: 0196-2892, publisher The Institute of Electrical and Electronics Engineers (IEEE).
 Editor-in-Chief: Jon Atli Benediktsson, EIC, Dept. of ECE, University of Iceland.
 Associate Editor: Paul Smits, Joint Research Centre Institute for Env. and Sustainability, Italy.
 Associate Editor: Ryuei Nishii, Kyushu University, Japan.
 Associate Editor: Antonio Plaza, Universidad de Extremadura, Spain.
 Associate Editor: Jocelyn Chanussot, Grenoble Institute of Technology, France.
 Associate Editor: James C. Tilton, Information Science and Technology Research, Goddard Space Flight Center, National Aeronautics and Space Administration (NASA), USA.
 Associate Editor: Jordi Inglada, Centre Nationale d'Etudes Spatiales, CNES, France
 Date: 2005-2016.

- (h) *IEEE Transactions on Circuits and Systems for Video Technology*, ISSN: 1051-8215, publisher The Institute of Electrical and Electronics Engineers (IEEE).
 Editor-in-Chief: Hamid Gharavi, National Institute of Standards and Technologies US Dep. of Commerce, USA.
 Associate Editor: Peng Yin, Image Technology Research Dolby Laboratories, USA
 Date: 2010-2011.
- (i) *IEEE Geoscience and Remote Sensing Letters*, ISSN: 1545-598X, publisher The Institute of Electrical and Electronics Engineers (IEEE).
 Editor-in-Chief: Dr. William J. Emery, University of Colorado, USA
 Associate Editor: Dr. Gabriele Moser, University of Genoa, Italy
 Associate Editor: Dr. Fabio Del Frate, Tor Vergata University, Italy
 Associate Editor: Dr. Renato Cintra, Universidade Federal de Pernambuco, Brazil
 Date: 2008-2016.
- (j) *IEEE Signal Processing Letters*, ISSN: 1070-9908, publisher The Institute of Electrical and Electronics Engineers (IEEE).
 Editor-in-Chief: Alle-Jan van der Veen, Delft University of Technology, Delft, The Netherlands
 Associate Editor: Dr. Dipti Prasad Mukherjee, Indian Statistical Institute, India.
 Associate Editor: Prof. Konstantinos Plataniotis, University of Toronto, Canada.
 Associate Editor: Dr. James E. Fowler, Mississippi State University, USA.
 Date: 2005-2008.
- (k) *IEEE Journal of Selected Topics in Signal Processing*, ISSN: 1932-4553, publisher The Institute of Electrical and Electronics Engineers (IEEE).
 Editor-in-Chief: Vikram Krishnamurthy, Univ. of British Columbia, Canada
 Associate Editor: Gustavo Camps-Valls, University of Valencia, Spain
 Date: 2010-2011.
- (l) *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, ISSN: 1939-1404, publisher The Institute of Electrical and Electronics Engineers (IEEE).
 Editor-in-Chief: Jocelyn Chanussot, Grenoble Institute of Technology, France
 Associate Editor: Roger King, Mississippi State University, USA
 Associate Editor: Jocelyn Chanussot, Grenoble Institute of Technology, France
 Associate Editor: Xiaohua Tong, Tongji University, China.
 Associate Editor: Bormin Huang, University of Wisconsin-Madison, USA.
 Date: 2010-2016.
- (m) *IEEE Transactions on Computational Imaging*, ISSN: 2333-9403, publisher The Institute of Electrical and Electronics Engineers (IEEE).
 Editor-in-Chief: Prof. W. Clem Karl, Boston University, USA
 Associate Editor: Sylvain Paris, Adobe Research, USA.
 Date: 2016.
- (n) *Electronic Letters on Computer Vision and Image Analysis*, ISSN: 1577-5097, published by the Computer Vision Center (CVC-UAB).
 Editors: Juan José Villanueva, Computer Vision Center - UAB, Spain and Horst Bunke, Univ. of Bern, Switzerland.
 Editorial Assistant: Xavier Otazu, Computer Vision Center - UAB, Spain.
 Date: 2005-2010.

- (o) *Elsevier Journal of Visual Communication and Image Representation*, ISSN: 1047-3203, publisher Elsevier (Academic Press).
 Editor-in-Chief: Yehoshua Y. Zeevi, Technion - Israel Institute of Technology, Haifa, Israel
 C.-C. Jay Kuo, University of Southern California at Los Angeles, California, USA
 Editorial Board: D. Malah, Technion - Israel Institute of Technology, Haifa, Israel
 Date: 2007.
- (p) *Elsevier Signal Processing*, ISSN: 0165-1684, publisher Elsevier (Academic Press).
 Editor-in-Chief: Bjorn Ottersten, Royal Institute of Technology, Stockholm, Sweden.
 Handling Editor: Bulent Sankur, Bogazici University, Istanbul, Turkey.
 Handling Editor: Xiaofei He, Zhejiang University, China.
 Date: 2008-2009.
- (q) *Elsevier Signal Processing: Image Communication*, ISSN: 0923-5965, publisher Elsevier (Academic Press).
 Editor-in-Chief: Frederic Dufaux, Laboratoire de Traitement et Communication de l'Information, CNRS, Telecom ParisTech, Paris, France.
 Area Editor: Marco Cagnazzo, Telecom ParisTech, Paris, France.
 Area Editor: Philippe Salembier, Universitat Politecnica Catalunya, Barcelona, Spain.
 Area Editor: Sergio M. Faria, Instituto de Telecomunicações, Leiria, Portugal.
 Date: 2011-2014.
- (r) *Elsevier Digital Signal Processing*, ISSN: 1051-2004, publisher Elsevier (Academic Press).
 Editor-in-Chief: Ercan E. Kuruoglu, ISTI-CNR, Pisa, Italy.
 Area Editor: Aravind Kailas, University of North Carolina Charlotte, USA.
 Date: 2014-2015.
- (s) *Mathematical Problems in Engineering*, ISSN: 1563-5147, publisher Hindawi.
 Area Editor: Ricardo Aguilar-Lopez, Centro de Investigacion y de Estudios Avanzados del IPN, Mexico.
 Date: 2014-2015.
- (t) *Multimedia Systems*, ISSN: 0942-4962, publisher Springer-Verlag.
 Editor-in-Chief: Thomas Plagemann, University of Oslo, Norway.
 Area Editor: Andreas Mauthe, Lancaster University, UK.
 Date: 2016.
- (u) *The Visual Computer*, ISSN: 1432-2315, publisher Springer-Verlag.
 Editor-in-Chief: Nadia Magnenat-Thalmann, MIRALab-CUI University of Geneva, Switzerland.
 Area Editor: Jian J. Zhang, Bournemouth University, Dorset, UK.
 Date: 2014-2015.
- (v) *IET Image Processing*, ISSN: Print: 1751-9659, Online: 1751-9667, publisher The Institution of Engineering and Technology (IET).
 Editor-in-Chief: Dr. Farzin Deravi, University of Kent, England
 Editorial Board: Hamid Gharavi, National Institute of Standards and Technology (NIST), US Department of Commerce, USA
 Date: 2007-2013.
- (w) *SPIE Optical Engineering*, ISSN: 0091-3286, publisher The International Society for Optical Engineering (SPIE).
 Editor-in-Chief: Donald C. O'Shea, Georgia Institute of Technology, Atlanta, USA.
 Associate Editor: Andrew G. Tescher, AGT Associates, USA

Associate Editor: Michael Bove, Massachusetts Institute of Technology, USA

Associate Editor: Don Braggins, Machine Vision Systems Consultancy, UK

Associate Editor: Yu-Jin Zhang, Tsinghua University, China

Date: 2004-2013.

- (x) *SPIE Journal of Applied Remote Sensing*, ISSN: 1931-3195, publisher The International Society for Optical Engineering (SPIE).

Editor-in-Chief: Wei Gao, Colorado State University, USA.

Associate Editor: Bormin Huang, Univ. of Wisconsin/Madison, USA

Date: 2009-2010.

- (y) *Journal of Atmospheric and Oceanic Technology*, ISSN: 0739-0572, publisher American Meteorological Society (AMS).

Editor-in-Chief: Dr. R. Michael Hardesty, NOAA Earth System Research Laboratory, USA.

JTECH Editorial Assistant: Joy Duke, NASA Langley Research Center, USA

Date: 2006-2007.

30. Committee Chair: 30th IEEE Data Compression Conference (DCC), (Proceedings published by the IEEE Computer Society Press.), Snowbird, Utah, USA, March 24 - 27, 2020. Conference Chairs: James A. Storer, Brandeis University (DCC Chair); Michael W. Marcellin, University of Arizona (DCC Chair); Ali Bilgin, U. of Arizona (Program Committee Chair); Joan Serra-Sagristà, Universitat Autònoma de Barcelona (Program Committee Chair); Henrique Malvar, Microsoft Research (Publications Chair); James E. Fowler, Mississippi State U. (Publicity Chair)
<http://www.cs.brandeis.edu/~dcc/Call.html>
31. Committee Chair: 29th IEEE Data Compression Conference (DCC), (Proceedings published by the IEEE Computer Society Press.), Snowbird, Utah, USA, March 26 - 29, 2019. Conference Chairs: James A. Storer, Brandeis University (DCC Chair); Michael W. Marcellin, University of Arizona (DCC Chair); Ali Bilgin, U. of Arizona (Program Committee Chair); Joan Serra-Sagristà, Universitat Autònoma de Barcelona (Program Committee Chair); Henrique Malvar, Microsoft Research (Publications Chair); James E. Fowler, Mississippi State U. (Publicity Chair)
<http://www.cs.brandeis.edu/~dcc/Call.html>
32. Committee Chair: 28th IEEE Data Compression Conference (DCC), (Proceedings published by the IEEE Computer Society Press.), Snowbird, Utah, USA, March 27 - 30, 2018. Conference Chairs: James A. Storer, Brandeis University (DCC Chair); Michael W. Marcellin, University of Arizona (DCC Chair); Ali Bilgin, U. of Arizona (Program Committee Chair); Joan Serra-Sagristà, Universitat Autònoma de Barcelona (Program Committee Chair); Henrique Malvar, Microsoft Research (Publications Chair); James E. Fowler, Mississippi State U. (Publicity Chair)
<http://www.cs.brandeis.edu/~dcc/Call.html>
33. Committee Chair: 27th IEEE Data Compression Conference (DCC), (Proceedings published by the IEEE Computer Society Press.), Snowbird, Utah, USA, April 4 - 7, 2017. Conference Chairs: James A. Storer, Brandeis University (DCC Chair); Michael W. Marcellin, University of Arizona (DCC Chair); Ali Bilgin, U. of Arizona (Program Committee Chair); Joan Serra-Sagristà, Universitat Autònoma de Barcelona (Program Committee Chair); Henrique Malvar, Microsoft Research (Publications Chair); James E. Fowler, Mississippi State U. (Publicity Chair)
<http://www.cs.brandeis.edu/~dcc/Call.html>
34. Committee Chair: 26th IEEE Data Compression Conference (DCC), (Proceedings published by the IEEE Computer Society Press.), Snowbird, Utah, USA, March 29 - April 1, 2016. Conference Chairs: James A. Storer, Brandeis University (DCC Chair); Michael W. Marcellin, University of Arizona (DCC Chair); Ali Bilgin, U. of Arizona (Program Committee

Chair); Joan Serra-Sagristà, Universitat Autònoma de Barcelona (Program Committee Chair); Henrique Malvar, Microsoft Research (Publications Chair); James E. Fowler, Mississippi State U. (Publicity Chair)
<http://www.cs.brandeis.edu/~dcc/Call.html>

35. Committee Chair: 25th IEEE Data Compression Conference (DCC), (Proceedings published by the IEEE Computer Society Press.), Snowbird, Utah, USA, April 6 - 9, 2015. Conference Chairs: James A. Storer, Brandeis University (DCC Chair); Michael W. Marcellin, University of Arizona (DCC Chair); Ali Bilgin, U. of Arizona (Program Committee Chair); Joan Serra-Sagristà, Universitat Autònoma de Barcelona (Program Committee Chair); Henrique Malvar, Microsoft Research (Publications Chair); James E. Fowler, Mississippi State U. (Publicity Chair)
<http://www.cs.brandeis.edu/~dcc/Call.html>
36. Special Session Co-organizer: IEEE International Conference on Image Processing (ICIP), Paris, France, October 27-30, 2014. General Chairs: Béatrice Pesquet-Popescu, Télécom ParisTech; James Fowler, Mississippi State University
Special Session Chairs: Ricardo de Queiroz, Universidade de Brasília; Gianni Poggi, University Federico II of Naples
Special Session: "Learning image features to encode visual information", Organizers: Jesús Malo, Universitat de València, Spain; Javier Portilla, Consejo Superior de Investigaciones Científicas - Madrid, Spain; Joan Serra-Sagristà, Universitat Autònoma de Barcelona, Spain
37. Committee Chair: 24th IEEE Data Compression Conference (DCC), (Proceedings published by the IEEE Computer Society Press.), Snowbird, Utah, USA, March 26 - 28, 2014. Conference Chairs: James A. Storer, Brandeis University (DCC Chair); Michael W. Marcellin, University of Arizona (DCC Chair); Ali Bilgin, U. of Arizona (Program Committee Chair); Joan Serra-Sagristà, Universitat Autònoma de Barcelona (Program Committee Chair); Henrique Malvar, Microsoft Research (Publications Chair); James E. Fowler, Mississippi State U. (Publicity Chair)
<http://www.cs.brandeis.edu/~dcc/Call.htm>
38. Committee Chair: 23rd IEEE Data Compression Conference (DCC), (Proceedings published by the IEEE Computer Society Press.), Snowbird, Utah, USA, March 20 - 22, 2013. Conference Chairs: James A. Storer, Brandeis University (DCC Chair); Michael W. Marcellin, University of Arizona (DCC Chair); Ali Bilgin, U. of Arizona (Program Committee Chair); Joan Serra-Sagristà, Universitat Autònoma de Barcelona (Program Committee Chair); Henrique Malvar, Microsoft Research (Publications Chair); James E. Fowler, Mississippi State U. (Publicity Chair)
<http://www.cs.brandeis.edu/~dcc/Call.htm>
39. Conference Chair of the International SPIE Conference on "Satellite Data Compression, Communications, and Processing VI", Optical Engineering + Applications Symposium, Remote Sensing Instrumentation Program Track, Optics and Photonics, San Diego, California, USA, 1-5 August 2010. Conference Chairs: Bormin Huang, Univ. of Wisconsin/Madison; Joan Serra-Sagristà, Univ. Autònoma de Barcelona (Spain); Antonio Plaza, Universidad de Extremadura, Spain.
40. Conference Chair of the International SPIE Conference on "Satellite Data Compression, Communications, and Processing IV (OP404)", Optical Engineering + Applications Symposium, Remote Sensing Instrumentation Program Track, Optics and Photonics, San Diego, California, USA, 10-14 August 2008. Conference Chairs: Bormin Huang, Univ. of Wisconsin/Madison; Roger W. Heymann, NOAA NESDIS Office of Systems Development; Joan Serra-Sagristà, Univ. Autònoma de Barcelona (Spain).
41. Member of the Committee Program of the International Conferences
 - i SPIE Conference on "Remotely Sensed Data Compression, Communications, and Processing XIII" (Conference SI123) Anaheim, California, USA, 9 - 13 April 2017. Conference Chairs: Bormin Huang, Univ. of Wisconsin/Madison, USA; Chein-I Chang, Univ. of Maryland, Baltimore County, USA. Chulhee Lee, Yonsei Univ. (Korea, Republic of).

- ii IASTED International Conference on Health Informatics (AfricaHI 2016), Gaborone, Botswana, September 5-7, 2016. Conference Chair: Dr. Naomi M. Seboni, University of Botswana, Botswana.
- iii SPIE Conference on “Remotely Sensed Data Compression, Communications, and Processing XII” (Conf. 9874) Baltimore, Maryland, USA, 17 - 21 April 2016. Conference Chairs: Bormin Huang, Univ. of Wisconsin/Madison, USA; Chein-I Chang, Univ. of Maryland, Baltimore County, USA. Chulhee Lee, Yonsei Univ. (Korea, Republic of).
- iv SPIE Conference on “Satellite Data Compression, Communications, and Processing XI” (Conf. ST127), DSS Sensing Technology + Applications, Baltimore, Maryland, USA, 20 - 24 April 2015. Conference Chairs: Bormin Huang, Univ. of Wisconsin/Madison, USA; José Fco. López, Univ. de Las Palmas de Gran Canaria, Spain; Chein-I Chang, Univ. of Maryland, Baltimore County, USA.
- v SPIE Conference on “Satellite Data Compression, Communications, and Processing X” (Conf. ST146), DSS Sensing Technology + Applications, Baltimore, Maryland, USA, 5 - 9 May 2014. Conference Chairs: Bormin Huang, Univ. of Wisconsin/Madison, USA; Chein-I Chang, Univ. of Maryland, Baltimore County, USA; José Fco. López, Univ. de Las Palmas de Gran Canaria, Spain.
- vi SPIE Conference on “Satellite Data Compression, Communications, and Archiving VIII (OP505)”, Optics and Photonics, San Diego, California USA, 12 August - 13 August 2012. Conference Chairs: Bormin Huang, Univ. of Wisconsin/Madison; Antonio J. Plaza, Univ. de Extremadura (Spain); Carole Thiebaut, Centre National d’Etudes Spatiales (France).
- vii 10th IASTED International Conference on “Visualization, Imaging, and Image Processing (VIIP 2012)”, Banff, Canada, July 3 - 5, 2012. Conference Chairs: Dr. Saif Al Zahir, The University of Northern British Columbia, Canada.
- viii IASTED International Conference on Health Informatics (AfricaHI 2012), Gaborone, Botswana, June 18-20, 2012. Conference Chairs: Prof. Matthew N. Tanko, University of Botswana, Botswana; Dr. Naomi M. Seboni, University of Botswana, Botswana.
- ix Second IASTED International Conference on “Imaging and Signal Processing in Healthcare and Technology”, Baltimore, USA from May 14 to 16, 2012. Conference Chair: Dr. Ronald Merrell, Virginia Commonwealth University, USA.
- x 22nd IEEE Data Compression Conference (DCC), (Proceedings published by the IEEE Computer Society Press.), Snowbird, Utah, USA, April 10 - 12, 2012. Conference Chairs: James A. Storer, Brandeis University (DCC Chair) Michael W. Marcellin, University of Arizona (Committee Chair) Henrique Malvar, Microsoft (Submissions Chair) <http://www.cs.brandeis.edu/~dcc/Call.html>
- xi SPIE Europe Conference on “High-Performance Computing in Remote Sensing”, SPIE Remote Sensing Europe Symposium, Prague, Czech Republic, 19-22 September 2011. Conference Chairs: Bormin Huang, Univ. of Wisconsin, Madison (United States); Antonio J. Plaza, Univ. de Extremadura (Spain).
- xii SPIE Conference on “Satellite Data Compression, Communications, and Archiving VII (OP505)”, Optics and Photonics, San Diego, California USA, 21 August - 25 August 2011. Conference Chairs: Bormin Huang, Univ. of Wisconsin/Madison; Antonio J. Plaza, Univ. de Extremadura (Spain); Carole Thiebaut, Centre National d’Etudes Spatiales (France).
- xiii First IASTED International Conference on “Imaging and Signal Processing in Healthcare and Technology”, Washington DC, USA, May 16 - 18, 2011. Conference Chair: Dr. Ronald Merrell, Virginia Commonwealth University, USA.
- xiv 21st IEEE Data Compression Conference (DCC), (Proceedings published by the IEEE Computer Society Press.), Snowbird, Utah, USA, March 29 - 31, 2011. Conference Chairs: James A. Storer, Brandeis University (DCC Chair)

- Michael W. Marcellin, University of Arizona (Committee Chair) Henrique Malvar, Microsoft (Submissions Chair)
<http://www.cs.brandeis.edu/~dcc/Call.html>
- xv Workshop on Multimedia Data Coding and Transmission (WMDCT), Congreso Español de Informática (CEDI), Valencia (Spain), 8-9 September 2010. Conference Chair: Adriana Dapena, Universidade da Coruña
- xvi 20th IEEE Data Compression Conference (DCC), (Proceedings published by the IEEE Computer Society Press.), Snowbird, Utah, USA, March 24 - 26, 2010. Conference Chairs: James A. Storer, Brandeis University (DCC Chair) Michael W. Marcellin, University of Arizona (Committee Chair) Henrique Malvar, Microsoft (Submissions Chair)
<http://www.cs.brandeis.edu/~dcc/Call.html>
- xvii SPIE Conference on “Satellite Data Compression, Communications, and Archiving V (OP 504)”, Optics and Photonics, San Diego, California USA, 2 - 6 August 2009. Conference Chairs: Bormin Huang, Univ. of Wisconsin, Madison (United States); Antonio J. Plaza, Univ. de Extremadura (Spain); Raffaele Vitulli, European Space Agency (Netherlands).
- xviii Ninth IASTED International Conference on “Visualization, Imaging, and Image Processing (VIIP 2009)”, Cambridge, United Kingdom, 13-15 July 2009. Conference Chairs: Prof. Jian Zhang - Bournemouth University, United Kingdom.
- xix 19th IEEE Data Compression Conference (DCC), (Proceedings published by the IEEE Computer Society Press.), Snowbird, Utah, USA, March 16 - 18, 2009. Conference Chairs: James A. Storer, Brandeis University (DCC Chair) Michael W. Marcellin, University of Arizona (Committee Chair) Henrique Malvar, Microsoft (Submissions Chair)
<http://www.cs.brandeis.edu/~dcc/Call.html>
- xx 12th International Conference on “Knowledge-Based and Intelligent Information & Engineering Systems (KES2008)”, Zagreb, Croatia, 3-5 September 2008. Conference Chairs: Ignac Lovrek, University of Zagreb, Croatia; Robert J. Howlett, University of Brighton, U.K.; Lakhmi C. Jain, University of South Australia, Adelaide, Australia.
- xxi Eighth IASTED International Conference on “Visualization, Imaging, and Image Processing (VIIP 2008)”, Palma de Mallorca, Spain, 1-3 September 2008. Conference Chairs: Juan José Villanueva - Autonomous University of Barcelona, Spain
- xxii SPIE Conference on “Satellite Data Compression, Communications, and Archiving III (OE 6683)”, Optics and Photonics, San Diego, California USA, 26 August - 30 August 2007. Conference Chairs: Bormin Huang, Univ. of Wisconsin/Madison; Roger W. Heymann, NOAA NESDIS Office of Systems Development; Charles C. Wang, The Aerospace Corp.
- xxiii Seventh IASTED International Conference on “Visualization, Imaging, and Image Processing (VIIP 2007)”, Palma de Mallorca, Spain, 29-31 August 2007. Conference Chairs: Juan José Villanueva - Autonomous University of Barcelona, Spain
- xxiv Sixth IASTED International Conference on “Visualization, Imaging, and Image Processing (VIIP 2006)”, Palma de Mallorca, Spain, 28-30 August 2006. Conference Chairs: Juan José Villanueva - Autonomous University of Barcelona, Spain
- xxv SPIE Conference on “Satellite Data Compression, Communications, and Archiving II (OEI106)”, Optics and Photonics, San Diego, California USA, 13 August - 17 August 2006. Conference Chairs: Bormin Huang, Univ. of Wisconsin/Madison; Roger W. Heymann, NOAA NESDIS Office of Systems Development; Charles C. Wang, The Aerospace Corp.
- xxvi “2005 WSEAS International Conference on Remote Sensing”, Venice, Italy, 7-9 November 2005. Conference Chairs: Hal J. Bloom, National Oceanic and Atmospheric Administration, USA; Bormin Huang, University of Wisconsin-

Madison, USA; Nicole Jacquinet-Husson, Ecole Polytechnique, France; Jeffery J. Puschell, Raytheon Strategic Systems, USA.

xxvii SPIE Conference on “Satellite Data Compression, Communications, and Archiving (OEI111)”, Optics and Photonics, San Diego, California USA, 31 July - 4 August 2005. Conference Chairs: Bormin Huang, Univ. of Wisconsin/Madison; Roger W. Heymann, NOAA NESDIS Office of Systems Development; Charles C. Wang, The Aerospace Corp.

xxviii International Conference on Engineering Applications of Neural Networks, EANN’98, Gibraltar.

42. Referee of the International Conferences

- (a) First workshop on Distributed and Cooperative Video Recognition and Analysis (DCVRA), 2015.
- (b) IEEE International Conference on Image Processing, Paris, France, October 2014.
- (c) 2nd International Conference on Computer and Communication Technology (ICCT 2011) Motilal Nehru National Institute Of Technology Allahabad, Allahabad- 211004, Uttar Pradesh, India, September 15-17, 2011.
- (d) 19th European Signal Processing Conference 2011 (EUSIPCO) Barcelona, Spain, August 29 - September 2, 2011.
- (e) IEEE International Geoscience & Remote Sensing Symposium (IGARSS 2010), Honolulu, Hawaii, USA, July 25-30, 2010.
- (f) IEEE International Geoscience & Remote Sensing Symposium (IGARSS 2009), Cape Town, South Africa, July 13-17, 2009.
- (g) IEEE International Geoscience & Remote Sensing Symposium (IGARSS 2008), Boston, Massachusetts, U.S.A., July 6-11, 2008.
- (h) International Conference on Engineering Applications of Neural Networks, EANN’96, London, Great Britain.

43. Referee of the book “Optical Payloads for Space Missions”, by Shen-En Qian, John Wiley & Sons, 2014.

44. Referee of the book “Optical Satellite: Data Compression and Implementation”, by Shen-En Qian, SPIE Press, 2013. ISBN:978-0-8194-9787-1.

45. Referee of the book “Optical Satellite: Signal Processing and Enhancement”, by Shen-En Qian, SPIE Press, 2013. ISBN: 978-0-8194-9328-6.

46. Referee of the book “Vector Quantization and its applications on Image Coding”, by Rosa Lancini, John Wiley & Sons, 1996.

47. Organization of R+D Activities

- (a) Title: “End-to-end optimized camera imaging”
Type of Activity: Conference Scope: International
Lecturer: Karen Egiazarian, Tampere University, Finland
Date and place: June 2019, Universitat Autònoma de Barcelona
- (b) Title: “Multi-View and Light Fields Processing: From Analysis, Representation, Compression to Rendering”
Type of Activity: Conference Scope: International
Project IEEE Signal Processing Society Distinguished Lecturer
Lecturer: Christine Guillemot, INRIA (France)
Date and place: July 2017, Universitat Autònoma de Barcelona

- (c) Title: “Current Trends in Multimedia Coding and Transmission”
 Type of Activity: Conference and Coordination Meeting
 Projects TSI2006-14005-C02-01 and TSI2007-30447-E Scope: International
 Lecturer: Fernando Pereira, Instituto Superior Técnico, Lisboa, Portugal
 Date and place: February 2009, Universitat Politècnica Catalunya (Barcelona)
- (d) Title: Coordination Meeting TSI2007-30447-E
 Type of Activity: Coordination Meeting Scope: National
 Date and place: November 2008, Palau Centelles (Barcelona)
- (e) Title: “Current Trends in Image Coding. JPEG2000. Digital Cinema”
 Type of Activity: Conference Scope: International
 Lecturers: David S. Taubman, University of New South Wales, Australia
 Michael W. Marcellin, University of Arizona, USA
 Date and place: December 2006, CosmoCaixa Barcelona (Barcelona)
- (f) Title: Coordination Meeting TIC2003-08604-C04
 Type of Activity: Coordination Meeting Scope: National
 Date and place: January 2004, UAB (Barcelona)
- (g) Title: Taller de JAVA para compresión de imágenes
 Type of Activity: Training Course Scope: National
 Date and place: February 2002, UAB (Barcelona)
- (h) Title: Coordination Meeting TIC2000-0739-C04
 Type of Activity: Coordination Meeting Scope: National
 Date and place: March 2001, UAB (Barcelona)
- (i) Title: Utilización de ENVI e IDL para imágenes hiperespectrales
 Type of Activity: Training Course Scope: International
 Date and place: February 1999, Sabadell (Barcelona)

48. Candidate to be a member of the Dissertation Committee for:

- (a) PhD candidate: Pascal Bacchus
 Supervisor: Aline Roumy, Christine Guillemot, INRIA Rennes
 Title: Deep Learning for Satellite Image Compression
 Place and date of submission: INRIA Rennes, France, 2023
- (b) PhD candidate: Debaleena Roy
 Supervisor: Victor Sanchez, UW
 Title: Graph Based Transforms for Block-based Predictive Transform Coding
 Place and date of submission: University of Warwick, United Kingdom, 2023
- (c) PhD candidate: Martita Muñoz Candia
 Supervisor: Cecilia Hernández Rivas, UC
 Title: Compact Data Structures for Raster Data
 Place and date of submission: Universidad de Concepción, Chile, 2022
- (d) PhD candidate: Fei Yang
 Supervisor: Luis Herranz, UAB; Mikhail G. Mozerov, UAB; Yongmei Cheng, NPU
 Title: Towards Practical Neural Image Compression
 Place and date of submission: Universitat Autònoma Barcelona, 2021.

- (e) PhD candidate: Patrick S. Pedersen
Supervisor: Jan Østergaard, AU
Title: Reconstruction of undersampled images obtained from atomic force microscopy (AFM) equipment
Place and date of submission: Aalborg University, Denmark, 2018
- (f) PhD candidate: Lee James Prangnell
Supervisor: Victor Sanchez, UW
Title: Visually Lossless Coding for the HEVC Standard: Efficient Perceptual Quantisation Contributions for HEVC
Place and date of submission: University of Warwick, United Kingdom, 2018
- (g) PhD candidate: Pascal Peter
Supervisor: Joachim Weickert, U Saarland
Title: Understanding and Advancing PDE-based Image Compression
Place and date of submission: Universität des Saarlandes, Germany, 2016
- (h) PhD candidate: Jonathan Gan
Supervisor: David S. Taubman, UNSW
Title: Transforms for the suppression of aliasing in resolution scalable image compression
Place and date of submission: University of New South Wales, Australia, 2014
- (i) PhD candidate: Juan Pablo García Ortiz
Supervisor: Vicente González Ruiz, UAL
Title: Interactive Browsing of Remote JPEG 2000 Images
Place and date of submission: Universidad de Almería, 2012.
- (j) PhD candidate: Jordi Serra Ruiz
Supervisor: David Megias Jimenez, UOC
Title: Esquemas de watermarking semifrágil para la protección de imágenes de obtención remota
Place and date of submission: Universitat Oberta de Catalunya, 2011.
- (k) PhD candidate: Alaitz Zabala Torres
Supervisor: Xavier Pons Fernández, UAB
Title: Lossy compression effects on remote sensing images and resulting cartography
Place and date of submission: Universitat Autònoma Barcelona, 2010.
- (l) PhD candidate: Otoniel Mario Lopez Granado
Supervisor: Manuel Pérez Malumbres, José Salvador Oliver Gil, UMH
Title: Fast and Efficient coding tools for digital image and video signals
Place and date of submission: Universidad Miguel Hernández, 2010.
- (m) PhD candidate: Manuel Francisco López Martínez
Supervisor: Vicente González Ruiz, Inmaculada García Fernández, UAL
Title: Transmisión progresiva de imagen y compresión escalable de vídeo
Place and date of submission: Universidad de Almería, 2008.
- (n) PhD candidate: Jose Orlando Maldonado Bautista
Supervisor: Manuel Graña Romay, EHU
Title: Estudio de métodos de indexación y recuperación en bases de datos de imágenes
Place and date of submission: Universidad del País Vasco, 2008.
- (o) PhD candidate: Joel Solé Rojals
Supervisor: Philippe Salembier Clairon, UPC

Title: New designs of linear and non-linear lifting schemes
Place and date of submission: Universidad Politécnic de Catalunya, 2006.

- (p) PhD candidate: Elsa Fernandez
Supervisor: Manuel Graña Romay, EHU
Title: Algunas contribuciones sobre la corrección de inhomogeneidades de iluminación en imágenes digitales
Place and date of submission: Universidad del País Vasco, 2005.
- (q) PhD candidate: Julia Minguillon Alfonso
Supervisor: Jaume Pujol Capdevila, UAB
Title: On Cascading Small Decision Trees
Place and date of submission: Universidad Autónoma de Barcelona, 2002.
- (r) PhD candidate: Pedro Luis Aguilar Mateos
Supervisor: Pablo Martinez Cobo, UEX
Title: SOM neural network applied to hyperspectral image coding
Place and date of submission: Universidad de Extremadura, 2001.

49. Member of the international scientific societies:

- (a) IEEC. Institute of Space Studies of Catalonia (Institut d'Estudis Espacials de Catalunya), www.ieec.cat.
Appointment: May 2018; End date: ...
- (b) IEEE. The Institute of Electrical and Electronics Engineers, www.ieee.org.
Senior Member (since 2011). Member number: 80388288.
IEEE Geoscience and Remote Sensing Society Membership.
IEEE Signal Processing Society Membership.
IEEE Information Theory Society Membership.
- (c) SPIE. The Society of Photo-Optical Instrumentation Engineers, spie.org.
Former Member number: 00693246.

14 Other Merits

1. Languages

Language	Speaking	Reading	Writing	Level
Catalan	Fluently	Fluently	Fluently	Mother tongue
Spanish	Fluently	Fluently	Fluently	Mother tongue
English	Fluently	Fluently	Fluently	First Certificate (A) (1986)
French	Fluently	Fluently	Fluently	Diplôme de la Langue Française (1992)
German	Regular	Regular	Regular	Mittelstufe III (1997)

Formalities of the curriculum

The undersigned, Joan Serra-Sagrà, with Spanish Identity Number 46.643.073-Q, hereby certifies the truthfulness of the data above, being ready to supply, if requested, any documentary proof.

Cerdanyola del Vallès, Barcelona, September 3, 2024.

