

# Curriculum Vitæ

## Joaquim Bruna

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Universitat Autònoma de Barcelona  
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CATALONIA  
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**Homepage:**

**Date and place of birth:** December 3, 1953 in Barcelona; Catalonia  
**Citizenship:** Spanish

### CURRENT POSITION

- Full Professor at the Departament de Matemàtiques, Universitat Autònoma de Barcelona (UAB), Catalonia, since 1984.
- Member of the Royal Academy of Sciences and Arts of Barcelona (RACAB)

### PREVIOUS POSITIONS

- 1/01/1976—16/04/1980: UAB (Mathematics), *Several short term positions*.
- 17/04/1980—30/09/1980: Universidad de Sevilla (Mathematics), *Associate professor*.
- 1/10/1980—9/2/1984: UAB (Mathematics), *Associate professor*.
- 1/6/98—28/02/02: UAB, *Chairman of the Department of Mathematics*.
- 2007—2015: Generalitat de Catalunya, *Director of the Centre de Recerca Matemàtica (CRM)*.

### VISITING POSITIONS

- 06/01/1982—30/05/1982: Univ. Paris-Sud, *Visiting professor*.
- 1/9/85—28/02/86: University of Wisconsin-Madison, *Visiting professor*.
- 1/03/86—30/06/86: University of New York at Albany, *Visiting Professor*.
- 01/11/1987—30/12/1987: Mittag-Leffler Institute, *Visiting researcher*.
- 1/03/90—30/04/90: Bar Ilan University, *Visiting Professor*.
- 1984—2005: Univ. Provence (1984, 1992, 1997, 2005), Univ. Paul Sabatier (1989), Univ. Bordeaux (1991, 1993, 1994, 1995, 1996), Univ. Paris-Sud (1994), Univ. Orleans (1995, 2002, 2004) , *Several one month visiting positions at French Universities*.
- 1/02/2004—28/02/2004: Norwegian Institute of Technology, *Visiting Researcher*.
- 1/02/2016—30/07/2016: Oxford Institute of Mathematics, *Visiting Professor*.
- 1/02/2016—30/07/2016: Keble College, Oxford, *Associate fellow*.

**EDUCATION**

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- June 1975: 5 year degree in Mathematics at the Universitat de Barcelona.
  - Dec 1978: Ph.D. in Mathematics, Universitat Autònoma de Barcelona.

**RESEARCH INTERESTS**


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Classical analysis, Complex Analysis in one or several variables, Harmonic Analysis, Function Theory, Mathematical foundations of signal processing, Applications of mathematics to industry

**PARTICIPATION IN FUNDED RESEARCH PROJECTS**

1. *Técnicas relacionadas con el operador  $\bar{\delta}$  y su aplicación a problemas clásicos de la teoría de funciones en dominios pseudoconvexos* (Ref: C.A.I.C.Y.T. No. 1593-82), 1983–1986, PI: Joaquin Ortega Aramburu, Amount: 10625
2. *Representación, aproximación e interpolación en espacios de funciones analíticas* (Ref: D.G.I.C.Y.T. No. PB85-0374), 1986–1989, PI: Joaquin Ortega Aramburu, Amount: 18361
3. *Cooperación en Análisis Complejo* (Ref: Comité Conjunto Hispano- Norteamericano, CCB-88609/004), 1988–, PI: Joaquim Bruna Floris, Amount: 2754
4. *La ecuación  $\bar{\delta}u = f$ . Aplicaciones a problemas clásicos de la teoría de funciones analíticas* (Ref: C.A.I.C.Y.T.PB89-0311), 1990–1993, PI: Joaquin Ortega Aramburu, Amount: 23870
5. *Análisis Complejo. Aspectos algebraicos, singularidades, regularidad y problemas de invariancia* (Ref: D.G.I.C.Y.T. No PB92-0804-C02-02), Mayo 93–Mayo 96, PI: Joaquim Bruna Floris, Amount: 27542
6. *Análisis en los dominios pseudoconvexos* (Ref: D.G.I.C.Y.T. Acción integrada hispano-francesa), 1995–1997, PI: Joaquim Bruna Floris, Amount: 6487
7. *Análisis complejo en una y varias variables* (Ref: D.G.I.C.Y.T. No PB95-0956-C02-02), Julio 1996–Julio 1999, PI: Joaquim Bruna Floris, Amount: 19585
8. *Métodos de Análisis Armónico y Complejo en Teoría de Funciones* (Ref: D.G.I.C.Y.T. PB98-1242-C02-02), Diciembre 1999–Diciembre 2002, PI: Joaquim Bruna Floris, Amount: 21421
9. *Grup de Teoria de Funcions de la UAB-UB* (Ref: C.I.R.I.T., Ajuts de suport als grups de recerca de qualitat, 2000 SGR 00059 ), 2000–2002, PI: Joaquim Bruna Floris, 2000 SGR 00059, Amount: 61204
10. *Classical Analysis, Operator Theory, Geometry of Banach spaces, their interplay and their applications* (Ref: U.E. Research training network HPRN-CT-2000-00116), May 2000–May 2004, PI: Joaquim Bruna, coordinador científico del nodo de la UAB, Amount: 180000
11. *Singular Integrals and Function Theory* (Ref: U.E. Marie Curie Training Site HPMT-CT-2000-00053), September 2000–September 2004, PI: Joaquim Bruna, Amount: 158400
12. *Programa Iberdrola de Profesores visitantes en Ciencia y tecnología* (Ref: Fundación Iberdrola), 1999–2002, PI: Joaquim Bruna Floris, Amount: 6000
13. *Teoría geométrica de Funciones y Fundamentación Matemática de la Digitalización de Señales* (Ref: MCYT BFM2002-04072-C02-02), Octubre 2002–Octubre 2005, PI: Joaquim Bruna Floris, Amount: 80960
14. *Teoría de Funciones y sus conexiones con la teoría de la señal* (Ref: MTM2005-08984), Octubre 2005–Octubre 2008, PI: Joaquim Bruna Floris, Amount: 78000
15. *Diversos aspectos de la teoría de funciones y aplicaciones* (Ref: MTM2008-05561), 2008–2011, PI: Joan J. Carmona, Amount: 79.134
16. *Generadores, frames y bases de los espacios de Lebesgue* (Ref: MTM2012-36378), 2012–2015, PI: Joaquim Bruna, Amount: 29.601

17. *Grup de Teoria de Funcions de la UAB-UB* (Ref: AGAUR, Ajuts de suport als grups de recerca de qualitat, 2001 SGR 00172 ), 2001–2005, PI: Joaquin Ortega Aramburu, Amount: 46878
18. *Grup de Teoria de Funcions de la UAB-UB* (Ref: AGAUR, Ajuts de suport als grups de recerca de qualitat, 2005 SGR 00611 ), 2005–2009, PI: Joaquin Ortega Aramburu, Amount: 61204
19. *Grup de Teoria de Funcions de la UAB-UB* (Ref: AGAUR, Ajuts de suport als grups de recerca de qualitat, 2009SGR1303), 2009–2013, PI: Carme Cascante Canut, Amount: 54080
20. *Grup de Teoria de Funcions de la UAB-UB* (Ref: AGAUR, Ajuts de suport als grups de recerca de qualitat, 2014SGR289), 2014–2016, PI: Carme Cascante Canut, Amount: 30000
21. *Consolider Ingenio Mathematica* (Ref: MINECO, CSD2006-00032), 2007–2011, PI: Marco Antonio Lopez Cerdà, Amount: 7500000
22. *Espacios de funciones holomorfas y procesos de puntos* (Ref: MTM2017-83499-P), 2018–2021, PI: Joaquim Ortega-Cerdà, Amount: 120.637
23. *Grup de Teoria de Funcions de la UAB-UB* (Ref: AGAUR, Ajuts de suport als grups de recerca de qualitat, 2017SGR358), 2017–2019, PI: Carme Cascante Canut, Amount: 20000
24. *Grup de Teoria de Funcions de la UAB-UB* (Ref: AGAUR, Ajuts de suport als grups de recerca de qualitat, 2017SGR358), 2017–2019, PI: Carme Cascante Canut, Amount: 20000
25. *Barcelona Graduate School of Mathematics* (Ref: MDM-2014-0445), 2015–2019, PI: Marc Noy, Amount: 2000000

## PUBLICATIONS

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1. *Cuasianaliticidad en clases de funciones de cuadrado sumable*, J.Bruna, Pub.Mat. UAB, **A** (3), 16–22.1978
2. *Estudi d'una àlgebra topològica de funcions diferenciables*, J.Bruna, tesis doctoral, Pub.Mat. UAB, **A** (6), 1–179.1978
3. *Una nota sobre cuasianaliticidad*, J.Bruna, unpublished, **S** (), –.
4. *On algebras of quasianalytic functions*, J.Bruna, Collect. Math., **A** (30(2)), 113–123.1979
5. *An extension theorem of Whitney type for non-quasianalytic classes of functions*, J.Bruna, Journal London Math. Soc., **A** (22(2)), 459–505.1979
6. *The analytic Denjoy-Carleman algebras*, J.Bruna, Collect. Math., **A** (30(3)), 213–225.1979
7. *Sobre los conjuntos de interpolación de  $A^\infty(D)$* , J.Bruna, Rev. Univ. Santander, **A** (2(1)), 103–105.1979
8. *On inverse-closed algebras of infinitely differentiable functions*, J.Bruna, Studia Mathematica, **A** (69), 59–68.1980
9. *Spectral synthesis in non-quasianalytic classes of infinitely differentiable functions*, J.Bruna, Bulletin des Sciences Mathématiques, **A** (104), 65–78.1980
10. *Conjuntos de interpolación para funciones holomorfas y regulares en la frontera*, J.Bruna, Pub. Mat. UAB, **A** (21), 153–157.1980
11. *Les ensembles d'interpolation des  $A^p(D)$* , J.Bruna, Comptes Rendus de l'Acad. Sciences Paris, serie A, **A** (290(1)), 25–27.1980
12. *Boundary interpolation sets for holomorphic functions smooth to the boundary and BMO*, J.Bruna, Transactions of the A.M.S., **A** (264(2)), 393–409.1981
13. *BMO and Muckenhoupt's weights in some boundary problems in one complex variable*, J.Bruna, Lecture Notes in Math., **A** (980), 74–86.1982
14. *Conjunts de pic per a funcions holomorfes i lipschitzianes*, J.Bruna, Actualités mathématiques, **A** (), 325–328.1982
15. *Free interpolation for holomorphic functions regular at the boundary*, J.Bruna-F.Tugores, Pacific Journal of Math., **A** (108(1)), 31–51.1983

16. *On the peak sets for holomorphic Lipschitz functions*, J.Bruna, Indiana Math. Journal, **A** (32(2)), 257–273.1983
17. *Ideaux de type fini dans les algèbres  $A^m(D)$* , J.Bruna-J.M.Ortega, Lecture Notes in Math., **A** (1094), 20–28.1984
18. *Some explicit kernels for solving the  $\bar{\delta}$ -equation in strictly convex domains*, J.Bruna-J.Cufí, unpublished, **S** (), –.
19. *Closed finitely generated ideals in algebras of holomorphic functions smooth to the boundary in strictly pseudoconvex domains*, J.Bruna-J.M.Ortega, Math. Annalen, **A** (268), 137–157.1984
20. *Núcleos de Cauchy en dominios estrictamente pseudoconvexos y operadores integrales que invierten la ecuación  $\bar{\delta}$* , J.Bruna, Contribuciones Matemáticas en honor de Luis Vigil, **A** (), 81–100.1984
21. *Hölder and  $L^p$  estimates for the  $\bar{\delta}$ -equation in some convex domains with real-analytic boundary*, J.Bruna-J.Castillo, Math. Annalen, **A** (269), 527–539.1984
22. *Holomorphic approximation in  $C^m$ -norms on totally real compact sets in  $\mathbf{C}^n$* , J.Bruna-J.M.Burgués, Math. Annalen, **A** (269), 103–117.1984
23. *Cauchy kernels in strictly pseudoconvex domains and an application to a Mergelyan type approximation problem*, J.Bruna-J.Cufí-J.Verdera, Math. Zeitschrift, **A** (189), 41–53.1985
24. *Interpolation by holomorphic functions smooth to the boundary in the unit ball of  $\mathbf{C}^n$* , J.Bruna-J.M.Ortega, Math. Annalen, **A** (274), 527–575.1986
25. *A note on Calderon-Zygmund singular integral convolution operators*, J.Bruna-B.Korenblum, Bulletin Amer. Math. Soc., **A** (16), 271–273.1987
26. *Holomorphic approximation and estimates for the  $\bar{\delta}$ -equation in strictly pseudoconvex non smooth domains*, J.Bruna-J.M.Burgués, Duke Math. Journal, **A** (55(3)), 539–596.1987
27. *On holomorphic functions in the ball with absolutely continuous boundary values*, P.Ahern-J.Bruna, Duke Math. Journal, **A** (56(1)), 129–142.1988
28. *On Kolmogorov's theorem, the Hardy-Littlewood maximal function and the radial maximal function*, J.Bruna-B.Korenblum, Journal d'Analyse Mathématique, **A** (50), 225–239.1988
29. *Boundary absolute continuity of functions in the ball algebra*, J.Bruna, Lecture Notes in Math., **A** (1276), 55–60.1988
30. *Convex hypersurfaces and Fourier transforms*, J.Bruna-A.Nagel-S.Wainger, Annals of Mathematics, **A** (127), 333–365.1988
31. *Maximal characterizations of Hardy-Sobolev spaces in the unit ball of  $\mathbf{C}^n$* , P.Ahern-J.Bruna, Revista Matemática Iberoamericana, **A** (4), 123–153.1988
32. *On the growth of the Hardy-Littlewood maximal function and the Hilbert transform*, J.Bruna, Lecture Notes in Math., **A** (1384), 124–131.1989
33. *Interpolation in the class  $A^{-\infty}$* , J.Bruna-D.Pascuas, Journal of the London Math.Soc., **A** (40(2)), 452–466.1989
34. *Restrictions to transverse curves of some function spaces in the unit ball of  $\mathbf{C}^n$* , J.Bruna-C.Cascante, Michigan J. of Math., **A** (36), 387–401. 1989
35. *On the modulus of absolute continuity of holomorphic functions in the ball*, P.Ahern-J.Bruna, Illinois J. Math., **A** (34(3)), 568–585.1990
36. *Traces of pluriharmonic functions on curves*, B.Berndtsson-J.Bruna, Arkive in Mathematics, **A** (29(1)), 221–230.1990
37. *Traces on curves of Sobolev spaces of holomorphic functions*, J.Bruna-J.M.Ortega, Arkive in Mathematics, **A** (29(1)), 25–49.1991
38. *Non-isotropic regularity in Sobolev spaces of holomorphic functions*, J.Bruna, Editel Seminars and Conferences, **A** (5), 17–25.1991
39. *On  $A^\infty$  interpolating sets lying in curves*, J.Bruna-J.Ortega, Contemporary Mathematics, **A**

- (137), 93–104.1992
40. *A uniqueness theorem for invariantly harmonic functions in the unit ball of  $C^n$* , J.Bruna, Publicacions Matemàtiques, **A** (36), 421–426.1992
  41. *A converse of the volume-mean-value property for invariantly harmonic functions*, J.Bruna-J.Detraz, Proc. Amer. Math. Soc., **A** (122(4)), 1029–1034.1994
  42. *On  $H^p$ -solutions of the Bezout equation*, E.Amar-J.Bruna-A.Nicolau, Pacific J. Math., **A** (171(2)), 297–307.1995
  43. *On  $H^p$ -solutions of the corona equation in the ball*, E.Amar-J.Bruna, Journal of Fourier Analysis, **A** (1), 7–15 .1995
  44. *Zero sets of holomorphic functions in the unit ball with slow growth*, J.Bruna-X.Massaneda, Journal d'Analyse Mathematique, **A** (66), 217–252.1995
  45. *Pluriharmonic interpolation and hulls of  $C^1$ -curves in the unit sphere*, H.Alexander-J.Bruna, Revista Matemática Iberoamericana, **A** (11(3)), 547–568.1995
  46. *A note on interpolation in the Hardy spaces of the unit disc*, J.Bruna-A.Nicolau-K.Oyma, Proceedings of the Amer. Math. Soc., **A** (124(4)), 1197–1204.1996
  47.  *$H^p$ -theory for generalized M-harmonic functions in the unit ball*, P.Ahern-J.Bruna-C.Cascante, Indiana Math. Journal, **A** (45), 103–135.1996
  48. *A construction of outer functions along curves*, J.Bruna, Journal of Functional Analysis, **A** (140(1)), 151–169.1996
  49. *On  $L^p$  solutions of the Laplace equation and zeros of holomorphic functions*, J.Bruna-J.Ortega Cerdà, Annali della Scuola Normale Superiore di Pisa, **A** (24(3)), –.1997
  50. *Interpolation along manifolds in Hardy-Sobolev spaces*, J.Bruna-J.M.Ortega, The Journal of Geometrical Analysis, **A** (7(1)), 17–45.1997
  51. *On Hardy, BMO and Lipschitz spaces of invariantly harmonic functions in the ball*, A.Bonami-J.Bruna-S.Grellier, Proc. London Math. Soc., **A** (3), –.1998
  52. *Zero varieties of the Nevanlinna class in convex domains of finite type*, J.Bruna-Y.Dupain-P.Charpentier, Annals of Mathematics, **A** (147), 391–415.1998
  53. *Zero sets of  $H^p$ -functions in convex domains of strict finite type in  $C^n$* , J.Bruna-S.Grellier, Complex Variables, **A** (38), 243–261.1999
  54. *On truncations of Hankel and Toeplitz operators*, A.Bonami-J.Bruna, Publicacions Matemàtiques, **A** (43), 235–250.1999
  55.  *$L^2$ -estimates on chord-arc curves*, J.Bruna-M.J.Gonzalez, Pacific Journal of Mathematics, **A** (190(2)), 225–235.1999
  56. *Yves Meyer, un matemàtic vagabund*, J.Bruna-J.Verdera, Butlletí de la Societat Catalana de Matemàtiques, **A** (19(1)), 7–24.2004
  57. *Mapping properties of the laplacian in Sobolev spaces of forms on complete hyperbolic manifolds*, J.Bruna-J.Girbau, Annals of Global Analysis and Geometry, **A** (25), 151–176.2004
  58.  *$L^p$ -estimates for Riesz transforms on forms in hyperbolic space*, J.Bruna, Indiana Univ. Math. J., **A** (54(1)), 153–187.2005
  59. *Completeness of discrete translates in  $L^1(R)$* , J.Bruna-A. Olevskii-A.Ulanovskii, Revista Matemática IberoAmericana, **A** (22), 1–16.2006
  60. *On translation and affine systems spanning  $L^1(R)$* , J.Bruna, Journal of Fourier Analysis and Applications, **A** (12), 71–82.2006
  61. *On translates of the Poisson kernel and zeros of harmonic functions*, J.Bruna-M.Melnikov, Bulletin of the London Math. Soc., **A** (39), 317–326.2007
  62. *Generating functions of Lebesgue spaces by translations*, J.Bruna, Advanced Courses of Mathematical Analysis III, World Scientific,, **CL** (ISBN 978-981-281-844-7), 39–49.2008
  63. *Poisson type generators for  $L^1(R)$* , J.Bruna-G.Ascensi, Journal of Fourier Analysis and appli-

- cations, **A** (15(4)), 553–560.2009
64. *Model space results for the Gabor and Wavelet transforms*, J.Bruna-G.Ascensi, IEEE Trans. Inform. Theory, **A** (55(5)), 2250–2259.2009
  65. *Characterizing Abelian Admissible groups*, J.Bruna-J.Cufí-H.Fuhr-M.Miro, Journal of Geometric Analysis, **25(02)** (1045-1074), 2015.

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#### DISSEMINATION ARTICLES

1. *Anàlisi complexa: de la teoria de Cauchy a la teoria del potencial*, J.Bruna, Butlletí Soc. Cat. Mat., **A** (1), –. 1987
2. *Pere Menal i Brufal (1951-1991)*, J.Bruna, W.Dicks, Publicacions Matemàtiques, **A** (36), 355–358. 1993
3. *Una reflexión sobre los estudios de Matemáticas y sus perspectivas*, J.Bruna, La Gaceta Matemática, **A** (), –.2000
4. *Representació i mostraig de funcions: de les sèries de Fourier a la teoria d'ondetes*, J.Bruna, Butlletí de la Societat Catalana de Matemàtiques, **A** (14(1)), 31–62.1999
5. *Sampling in Complex and Harmonic Analysis*, J.Bruna, Progress in Mathematics, **A** (201), 225–246.2001
6. *Connections between signal processing and complex analysis*, J.Bruna-X.Massaneda-J.Ortega-Cerda, Contributions to Science, **A** (2(3)), 345–357.2003
7. *Yves Meyer, un matemàtic vagabund*, J.Bruna, J.Verdera, Butlletí de la Societat Catalana de Matemàtiques, **A** (19(1)), 7–24.2004
8. *Euler, sèries i funció zeta*, J.Bruna, Butlletí digital FME-UPC, jornada Riemann 2007, **A** (), –.2007
9. *Some work by Beurling*, J.Bruna, Revista Matematica Iberoamericana, **A** (27(4)), 65–79.2011
10. *Aproximació no lineal i mostraig comprimit*, J.Bruna, Butlletí de la Societat Catalana de Matemàtiques, **A** (30(2)), 109–123.2015
11. *Ernest Coromines (1913-1992)*, J.Bruna-J.Cufí, Notícies de la Societat Catalana de Matemàtiques, **A** (36), 38-46.2014

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#### BOOKS

1. J.Bruna-J.Cufí, Métodos actuales de la teoría de funciones holomorfas de varias variables, 1983, Publicaciones de la Univ.Extremadura.
2. J.Bruna, Real Analysis, 1996, Publicacions de la UAB.
3. J.Bruna-J.Cufí, Anàlisi Complexa, 2008, Publicacions de la UAB.
4. J.Bruna-J.Cufí, Selecta Ferran Sunyer i Balaguer, 2012, Arxius de les seccions de Ciències, CXLIV, Institut d'Estudis Catalans
5. J.Bruna-J.Cufí, Complex Analysis, 2013, EMS textbooks in Mathematics.
6. J.Bruna, Harmonic Analysis, in preparation for WS
7. J.Bruna, Differential and integral calculus in several variables, in preparation for WS

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#### PHD THESIS SUPERVISION

1. *Joan del Castillo* in The Henkin kernel in convex domains, Joan del Castillo (year of defence: 1984).
2. *Josep Maria Burgués* in Holomorphic approximation and estimates for the  $\bar{\partial}$ - equation in strictly pseudoconvex compact sets, Josep Maria Burgués (year of defence: 1985).

3. *Carme Cascante* in Restriction and interpolation theorems for holomorphic and pluriharmonic functions in submanifolds of the unit sphere, Carme Cascante (year of defence: 1987).
4. *Daniel Pascuas* in Zero sets and interpolation in spaces of holomorphic functions in the unit disk, Daniel Pascuas (year of defence: 1987).
5. *Francesc Tugores* in Estimates for the  $\bar{\partial}$ -equation and the Bergman projection, Francesc Tugores (year of defence: 1991).
6. *Francesc Massaneda Clares* in Zero sets and interpolation in function spaces of slow growth, Francesc Massaneda Clares (year of defence: 1993).
7. *Joaquim Ortega Cerdà* in Zero varieties and interpolating sequences, Joaquim Ortega Cerdà (year of defence: 1995).
8. *Gerard Ascensi* in  $L^p(R)$ -generators with time-frequency translates, Gerard Ascensi (year of defence: 2007).
9. *Margarida Miro* in Admissible functions and orthonormal wavelets in  $R^n$ , Margarida Miro (year of defence: 2010).
10. *Nestor Costa* in Industrial Doctorate: mathematical aspects of optical encoders, Nestor Costa (year of defence: 2018).

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#### COMMITTEES AND EDITORIAL ACTIVITIES

- Editor of "Publicacions Matemàtiques", 1989-1992
- Director of the Ferran Sunyer Balaguer Foundation, 1996-2000
- Governing Board of the Ferran Sunyer Balaguer Foundation, 1996-2016
- Educational Committee of ECMI, European Consortium for Mathematics in Industry, 1999-2002
- Executive Committee of ECMI, European Consortium for Mathematics in Industry, 2003-2004
- Committee to report on mathematical research in Catalonia, for Institut d'Estudis Catalans, in 1998.
- Committee of the Spanish National Programme in Physics and Mathematics, 2003
- Scientific Program Committee for the International Congress of Mathematicians 2006
- Committee to report on coordination between research and teaching activity, for AQU, 2003
- President of the Sciences committee of AQU, in charge of research accreditation, 2003-2007.
- Member of the jury of Premio Nacional de Investigación Julio Rey Pastor 2005, for Ministerio de Educación y Ciencia, 2005
- Member of the scientific committee of the Catalan Mathematical Society, 2004-2014
- Committee for Instituto Espanyol de Matemáticas, for the "Secretaria General de Política Científica", Ministerio de Educación y Ciencia, 2007.
- Governing Board of Consolider Mathematica i-math, 2006-2011
- Editor of Revista Matematica Iberoamericana, 2009-2018.
- Governing Board of the Barcelona Graduate School of Mathematics, 2014-2016

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#### CONTRACTS, PATENTS, ENTREPRENEURSHIP AND INNOVATION

- Founder of the Mathematical Consulting Service of UAB and director from 1999 to 2002
- Optimal fleet study for Repsol, Minor Planet SA and Complex Systems, 2001
- Optimal digital pseudocodes for optical encoders, for Hohner Iberica, 2013
- A tool for optimal task allocation, for Ferrovial Servicios, 2015
- European patent EP18382082.2, An optical incremental encoder, a mask for an optical incremental encoder and a method to calculate the shape of mask slots in opticla incremental encoders, 2018.

- With Rafael Sala and Ricard Alemany, cofounder of RISK RANGE S.L., an online financial rating tool 2015-2017 (presently dissapeared)

## HONORS

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- "Premio Extraordinario de licenciatura" 1975
- Premi Martí d'Ardenya de l'Institut d'Estudis Catalans 1979
- "Distinció de la Generalitat de Catalunya per a la Recerca Universitària", 2001-2006
- Medalla Narcís Monturiol de la Generalitat de Catalunya, 2012