

Curriculum Vitae

# Xavier Jarque i Ribera



## Personal

Place of birth: Barcelona, Catalonia  
Date of birth: November 22, 1966  
Marital Status: Married, four children  
Citizenship: Catalan  
Languages: Catalan (Native), Spanish (Native), English (Satisfactory)

## Professional Address

Departament de Matemàtiques i Informàtica  
Universitat de Barcelona  
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E-mail: [xavier.jarque@ub.edu](mailto:xavier.jarque@ub.edu)  
Home page: <https://webgrec.ub.edu/webpages/000006/cat/xavier.jarque.ub.edu.html>  
Research Group web page(s): <http://www.gsd.uab.cat>, <http://www.maia.ub.es/holodyn/>

## Education

- Postdoc  
Department of Mathematics and Statistics, Boston University, Boston, 1995-1997.
- Ph. D. Mathematics (Dynamical Systems)  
Universitat Autònoma de Barcelona, Bellaterra (Barcelona), 1991-95.
- Graduate Studies (BA) in Mathematics  
Universitat Autònoma de Barcelona, Bellaterra (Barcelona), 1985-1990.
- Obligatory education and High School  
Col·legi La Farga, Sant Cugat Vallès (Barcelona), 1973-1985.

## Professional Experience

- Professor  
Departament de Matemàtiques i Informàtica, Universitat de Barcelona, 2020–
- Associate Professor  
Departament de Matemàtiques i Informàtica, Universitat de Barcelona, 2003-08 and 2011-2020.
- Associate Professor  
Departament de Enginyeria Informàtica i Matemàtiques (DEIM), Universitat Rovira i Virgili (Tarragona), 2008–2011.
- Associate Professor  
Departament d'Economia i d'Història Econòmica, Universitat Autònoma de Barcelona, 1997–2003.

## Other Teaching Experience

- Assistance Professor (Lecturer in Mathematics)  
Universitat Oberta de Catalunya (Catalan Open University), 2000–2010.  
Subject: Calculus, Algebra and Mathematical Economics
- Assistance Professor (Lecturer in Mathematics)  
Universitat Ramon Llull (Institut Químic de Sarrià), 1993–1995.  
Subject: Differential Equations
- Assistance Professor (Lecturer in Mathematics)  
Universitat Autònoma de Barcelona, 1991–1995.  
Subject: Calculus, Algebra, Differential Equations and Mathematical Economics

## Administrative Experience

- Director of the Department of Mathematics and Informatics at Universitat de Barcelona (IMUB), 2025–
- Director of the Institute of Mathematics at Universitat de Barcelona (IMUB), 2022–2025
- Director of the Fundació Ferran Sunyer i Balaguer, Insitutut d'Estudis Catalans, 2020–.
- Coordinator of the Master in Advance Mathematics, Facultat de Matemàtiques i Informàtica, Universitat de Barcelona, 2018–2022.
- President of the Catalan Mathematical Society, November 2014 – February 2019.

- Vice-director (the official name is *Secretary*) of the Sabadell Business School Universitat Autònoma de Barcelona, 1999–2002.

## Teaching Experience

- Master degree
  - Dynamical systems (Advanced Mathematics, Universitat de Barcelona)
  - Optimization (Foundations of Data Science, Universitat de Barcelona)
  - Quantitative Methods (Applied Economics, Universitat Autònoma de Barcelona)
- Bachelor degree
  - Numerical analysis
  - Introduction to mathematics (Vectorial Calculus and Linear Algebra)
  - Differential equations
  - Dynamical systems
  - Microeconomics intermedia
  - Introduction to industrial organization

## Publications (articles)

- *On the basin of attraction of a critical three-cycle of a model for the secant map* (with E. Fontich and A. Garijo), Discrete and Continuous Dynamical Systems, 45(4), 1045-1078, 2025.
- *Local connectivity of boundaries of tame Fatou components of meromorphic functions* (with K. Baranski, N. Fagella and B. Karpinska), Mathematische Annalen 391(2), 1779-1843, 2025.
- *Chaotic dynamics at the boundary of a basin of attraction via non-transversal intersections for a non-global smooth diffeomorphism* (with E. Fontich and A. Garijo), J. Nonlinear Sci. 34, 102, 2024.
- *On the basins of attraction of a one-dimensional family of root finding algorithms: from Newton to Traub* (with J. Canela, V. Evdoridou and A. Garijo), Math. Z., 303(55), 1-22 (2023).
- *Dynamics of the secant map near infinity* (with A. Garijo), J. Difference Equ. Appl., 28(10), 1334-1347 (2023).
- *Achievable connectivities of Fatou components for a family of singular perturbations* (with J. Canela and D. A. Paraschiv), Discrete Contin. Dyn. Syst., 42(9), 4237-4261 (2022).

- *Topological properties of the immediate basins of attraction for the secant method* (with A. Garijo and L. Gardini), *Mediterranean J. Math.* **18**(5), pp. 1-27 (2021)
- *Fatou components and singularities of meromorphic functions* (with K. Baranski, N. Fagella and B. Karpinska), *Proc. Roy. Soc. Edinburgh Sect. A*, **150** (2020), pp. 633-654.
- *The secant map applied to a real polynomial with multiple roots* (with A. Garijo), *Discrete Contin. Dyn. Syst.*, **40**(12) (2020), 6783 - 6794.
- *Singularities of inner functions associated with hyperbolic maps* (with V. Evdoridou, N. Fagella and D. J. Sixsmith), *J. Math. Anal. Appl.*, **477** (2019), pp. 536 - 550.
- *Global dynamics of the real secant method* (with A. Garijo) *Nonlinearity*, **32**(11) (2019), pp. 4557 - 4578.
- *Univalent wandering domains in the Eremenko-Lyubich class* (with N. Fagella and K. Lazebnik), *J. Anal. Math.* **139** (2019), pp. 369 - 395.
- *Escaping points in the boundaries of baker domains* (with K. Baranski, N. Fagella and B. Karpinska), *J. Anal. Math.* **137**(2) (2019), pp. 679 - 706.
- *Connectivity of Julia sets of Newton maps: a unified approach* (with K. Baranski, N. Fagella and B. Karpinska), *Revista Matematica Iberoamericana*, **34**(3) (2018), pp. 1211 - 1228.
- *Accesses to infinity from Fatou components* (with K. Baranski, N. Fagella and B. Karpinska), *Trans. Amer. Math. Soc.* **369**(3) (2017), pp. 1835 - 1867
- *An effective algorithm to compute Mandelbrot sets in parameter planes* (with T. Garijo and J. Villadelprat), *J. Numerical Algorithms.* **76** (2017), pp. 555 - 571.
- *Newton's method for symmetric quartic polynomials* (with B. Campos, A. Garijo and P. Vindel), *Appl. Math. Comput.*, **290** (2016), 326-335.
- *Wandering domains for composition of entire functions* (with N. Fagella and S. Godillon), *J. Math. Anal. Appl.*, **429** (2015), 478-496.
- *Absorbing sets and baker domains for holomorphic maps* (with K. Barański, N. Fagella and B. Karpińska), to appear in *J. London Math. Soc.* (2). **92**(1) (2014), 144-162.
- *On the connectivity of the Julia sets of meromorphic functions* (with K. Barański, N. Fagella and B. Karpińska), *Inventiones Mathematicae*, **198**(3) (2014), 591-636.
- *Sierpinski curve Julia sets for quadratic rational maps* (with R. L. Devaney, N. Fagella and A. Garijo), *Ann. Acad. Sci. Fenn. Ser. A I Math.*, **39** (2014), 3-22.
- *Brushing the hairs of transcendental entire functions* (with K. Barański and L. Rempe), *Topology and its Applications*, **159**(8) (2012), 2102-2014.
- *On Newton's method applied to real polynomials* (with F. Çilingir), *Journal of Difference Equations and Applications*, **18**(6) (2012), 1067-1076.

- *A survey on the blow-up technique* (with M. Jesús Álvarez and A. Ferragut), International Journal of Bifurcation and Chaos, **21(11)** (2012), 3103–3018.
- *On the connectivity of the escaping set for complex exponential Misiurewicz parameters*, Proceedings of the American Mathematical Society, **139(6)** (2011), 2057–2065.
- *Non-landing hairs in Sierpinski curve Julia sets of transcendental entire maps* (with A. Garijo and M. Moreno–Rocha), Fundamenta Mathematicae, **214(2)** (2011), 135–160.
- *On connectivity of Julia sets of transcendental meromorphic maps and weakly repelling fixed points II* (with N. Fagella and J. Taixés), Fundamenta Mathematicae, **215(2)** (2011), 177–202.
- *A note on the period function for certain planar vector fields* (with A. Garijo and A. Gasull), Journal of Difference Equations and Applications, **16(5–6)** (2010), 135–160.
- *Joining polynomial and exponential combinatorics for some entire maps* (with A. Garijo and M. Moreno–Rocha), Publicacions Matemàtiques, **54(1)** (2010), 116–136.
- *Simultaneous bifurcation of limit cycles from two nests of periodic orbits*, (with A. Garijo and A. Gasull), Journal of Mathematical Analysis and Applications, **341(2)** (2008), 813–824.
- *On connectivity of Julia sets of transcendental meromorphic maps and weakly repelling fixed points I* (with N. Fagella and J. Taixés), Proc. London Math. Soc., **97** (2008), 599–622.
- *Quadratic planar foliations*, Rocky Mountain Journal of Mathematics (with J. Llibre and D. S. Shafer), **38(2)** (2008), 489–530.
- *Global injectivity of  $C^1$  maps of the real plane, inseparable leaves and the palaiś–smale condition* (with C. Gutierrez, J. Llibre and M. Teixeira), Canadian Math. Bull. **50** (2008), 377–389.
- *Auctions with asymmetric common-values: The first-price format* (with M. A. de Frutos), Journal of Mathematical Economics, **43** (2007), 795–817.
- *Chaotic dynamics in credit constrained emerging economies* (with J. Caballé and E. Michetti), Journal of Economic Dynamics and Control, **30(8)** (2006), 1261–1275.
- *Structural stability of planar polynomial foliations* (with J. Llibre and D. S. Shafer), Journal of Dynamics and Differential Equations, **30(8)** (2006), 1261–1275.
- *Indecomposable continua and Misiurewicz points in exponential dynamics* (with R. L. Devaney and M. Moreno–Rocha), J. Bifur. Chaos Appl. Sci. Engrg., **15** (2005), 3281–3294.
- *Normal forms for singularities of one dimensional holomorphic vector fields* (with A. Garijo and A. Gasull), Electronic Journal of Differential Equations, **2004** (2004), 1–7.
- *Mediation: Incomplete information bargaining with filtered communication* (with C. Ponsatí and J. Sákovics), Journal of Mathematical Economics, **39** (2003), 803–830.

- *Indecomposable Continua in complex exponentials* (with R.L. Devaney), *Conformal Geometry and Dynamics*, **6** (2002), 1–12.
- *Hyperbolic components of the complex exponential family* (with N. Fagella and R.L. Devaney), *Fundamenta Mathematicae*, **174** (2002), 193–215.
- *Spatial competition with concave transport cost* (with M. A. de Frutos and H. Hamoudi), *Regional Science and Economics*, **32** (2002), 531–540.
- *Non Existence of Isochronous Centers in Planar Polynomial Hamiltonian Systems of Degree Four* (with J. Villadelprat), *Journal Differential Equations*, **180** (2002), 334–273.
- *On the Period Function of Centers in Planar Polynomial Systems of Degree Four* (with J. Villadelprat), *Qualitative Theory of Dynamical Systems*, **3** (2002), 157–180.
- *Polynomial foliations of  $R^2$*  (with J. Llibre), *Pacific Journal of Mathematics*, **197** (2001), 53–72.
- *Hamiltonian stability on the plane* (with Z. Nitecki), *Ergodic Theory and Dynamical Systems*, **20** (2000), 775–799.
- *Equilibrium existence in the circle model with linear quadratic transportation cost* (with M. A. de Frutos and H. Hamoudi), *Regional Science and Urban Economics*, **29** (1999), 605–615.
- *Misiurewicz points on complex exponential* (with R. L. Devaney), *International Journal of Bifurcation and Chaos*, **7** (1997), 1599–1615.
- *Periods for transversal maps via Lefschetz numbers for periodic points* (with A. Guillamon, J. Llibre, J. Ortega and J. Torregrosa), *Trans. AMS* **347** (1995), 4779–4805.
- *Structural stability of planar hamiltonian polynomial vector fields* (with J. Llibre), *Proc. London Math. Soc.* **68** (1994), 617–640.

## Research projects

- *Dinámica de métodos iterativos de búsqueda de ceros*  
CIGE/2023/102 (IP: Jordi Canela), Period 01/01/2024 to 31/12/2025.
- *Wandering domains, rigidity, and root finding in holomorphic dynamics*  
PID PID2023-147252NB-I00 (IP: Núria Fagella), Period: 2025–27.
- *Grup de sistmes dinàmics de la UB*  
SGR (IP: Àngel Jorba), Period: 2022–26.
- *Maria de Maeztu (CRM)*  
Ministerio (IP: Marcel Guardia), Period: 2022–25.
- *Estabilidad y caos en iteración holomorfa*  
PID (IP: Núria Fagella), Period: 2021–24.

- *Sistemas dinámicos holomorfos*  
MTM (IP: Núria Fagella), Period: 2018–20.
- *Grup de sistmes dinàmics de la UB*  
SGR (IP: Àngel Jorba), Period: 2017–20.
- *Maria de Maeztu (BGSM/CRM)*  
Ministerio (IP: Marcos Noy), Period: 2015–19.
- *Sistemas dinámicos holomorfos*  
MTM (IP: Núria Fagella), Period: 2015–17.
- *Sistemes dinàmics reals i complexes amb aplicacions*  
SGR (IP: Xavier Jarque), Period: 2014–17.
- *Topological properties of invariant sets in transcendental dynamics (HARMONIA)*  
National Science Center Kraków (IP: Krzysztof Barański), Period: 2013–16.
- *Dinámica, atractores y no linealidad: Caos y estabilidad*  
MTM (IP: Lluís Alsedà), Period: 2012.
- *Sistemas dinámicos holomorfos*  
MTM (IP: Núria Fagella), 2012–14.
- *Dinámica, atractores y no linealidad: Caos y estabilidad*  
MTM (IP: Carmen Núñez), Period: 2010.
- *Dinámica, atractores y no linealidad: Caos y estabilidad*  
MTM (IP: Àngel Jorba), Period: 2010–11.
- *Anàlisi matemàtic i aplicacions (Analyse Mathématique et applications)*  
AGAUR (IP: Francesc Xavier Massaneda), Period: 2009–10.
- *Dinámica, atractores y no linealidad: Caos y estabilidad*  
MTM (IP: Carmen Núñez), Period: 2009–10.
- *Sistemas dinámicos reales y complejos en dimensión baja*  
MTM (IP: Lluís Alsedà), Period: 2009–11.
- *Sistemes dinàmics holomorfs*  
SGR (IP: Xavier Jarque), Period: 2009–13.
- *Beca per estada professors espanyols en centres estrangers*  
Ministerio (IP: Xavier Jarque), (maig-agost) 2009.
- *Dynamical systems and topology (Organización congreso)*  
MTM (IP: Núria Fagella), 2008.
- *Dinámica, atractores y no linealidad: Caos y estabilidad*  
BFM-Ministerio (IP: Àngel Jorba), Period: 2008–09.

- *Anàlisi matemàtic i aplicacions (Analyse Mathématique et applications)*  
AGAUR (IP: Joaquim Ortega-Cerdà), Period: 2007–08.
- *Conformal structures and dynamics (CODY)*  
European Comission (IP: Núria Fagella and Sebastien van Strien), Period: 2007–10.
- *Métodos locales y globales sistemas dinámicos. Aplicaciones*  
MTM (IP: Carles Simó), Period: 2006–11.
- *Desarrollo de un modelo oligopolista de análisis de la competencia en el mercado de generación eléctrica español*  
CNEN (IP: María Ángeles de Frutos), Period: 2007.
- *Dinámica, atractores y no linealidad: Caos y estabilidad*  
BFM-Ministerio (IP: Amadeu Delshams), Period: 2006.
- *Grup de sistemes dinàmics i teoria qualitativa de la UAB*  
SGR (IP: Jaume Llibre), Period: 2005–08.
- *Estudio cualitativo y numérico de los sistemas dinámicos en dimensión baja*  
MTM (IP: Lluís Alsedà), Period: 2005–08.
- *Dinàmica no lineal en dimensió baixa i atractors estranys*  
Tematic network AGAUR (IP: Lluís Alsedà), Period: 2004–06.
- *Efectos reales de la política monetaria*  
SEC (IP: Jorge Caballé), Period 2004–06.
- *Dinámica, atractores y no linealidad: Caos y estabilidad*  
BFM-Ministerio (IP: Lluís Alsedà), Period: 2004.
- *Teoría cualitativa de ecuaciones diferenciales*  
MTM (IP: Jaume Llibre), Period: 2003–05.
- *Dinámica no lineal en dimensión baja y atractores extraños*  
BFM-Ministerio (IP: Lluís Alsedà), Period: 2003.
- *Dinàmica no lineal en dimensió baixa i atractors estranys*  
Xarxa temàtica AGAUR (IP: Lluís Alsedà), Period: 2002–04.
- *Estudio cualitativo de los sistemas dinámicos en dimensión menor que 3*  
MTM (IP: Lluís Alsedà), Period: 2002–04.
- *Grup de sistemes dinàmics i teoria qualitativa de la UAB*  
SGR (IP: Jaume Llibre), Period: 2002–05.
- *Periodic orbits and dynamical systems*  
European Comission (IP: Jaume Llibre), Period: 2002–05.
- *La política monetaria en la unión europea*  
SEC (IP: Jorge Caballé), Period 2001–03.

- *Teoría cualitativa de sistemas dinámicos con énfasis en las órbitas periódicas*  
MTM (IP: Jaume Llibre), Period: 1997–2001.
- *Teoría cualitativa de sistemas dinámicos*  
MTM (IP: Jaume Llibre), Period: 1994–96.
- Contribución al estudio de las órbitas periódicas en los sistemas dinámicos  
MTM (IP: Jaume Llibre), Period: 1991–93.

## Research Visitings Abroad (since 2000)

- Faculty of Mathematics, University of Ljubljana, Slovenia, December 2024 (8 days)
- MSRI-Berkeley (Simons Laufer Mathematical Sciences Institute), May 2022 (10 days)
- Banach Institute, IMPAN (Warsaw, Poland), January 2019 (1 week)
- Departament of Mathematics, CalTech, March 2018 (two weeks)
- CIRM (Centro Internazionale per la Ricerca Matematica), Trento (Italy), November 2016 (1 week)
- January 2016 (2 weeks)
- Banach Institute, IMPAN (Warsaw, Poland), January 2015 (2 weeks)
- Departament of Mathematics, Warsaw University, January 2014 (2 weeks)
- Departament of Mathematics and Statistics, Boston University, May–August 2009 (4 months)
- CIMAT, Guanajuato, Mexico, September 2008 (2 weeks)
- Department of Mathematics, Rochester University, July 2007 (1 month)
- Departamento de Matematica, Universidade de Campinas, Brazil, September 2004 (6 weeks)
- Mathematics Department, Beijing University, China, November 2003 (2 weeks)
- Department of Mathematics and Statistics, Boston University, April 2001 (2 weeks)

## Ph. D. Students

- Beno Učakar, *Holomorphic dynamics in one and several complex variables (tentative)*. First year (co-advised with Luka Boc Thaler).
- Dan A. Paraschiv, 2023 *About the connectivity of Fatou components for some families of rational maps* (co-advised with Jordi Canela).
- Jordi Taixés, 2011, *On the connectivity of the Julia set for transcendental meromorphic functions* (co-advised with Núria Fagella).

- Antonio Garijo, 2006, *Iteration of certain families of transcendental maps and phase portraits of complex differential equations* (co-advised with Núria Fagella).

## Seminars (since 2000)

- *Dynamics of the secant map near infinity*, Dynamical systems seminar, Universitat Autònoma de Barcelona, February 2022.
- *The secant method as a dynamical system on  $\mathbb{R}^2$* , OU Dynamical Systems Seminar, Open University (UK), May 2020.
- *The secant map as a global plane dynamical system*, Dynamical Systems seminar, Warsaw University, January 2019.
- *The secant map as a global plane dynamical system*, Dynamical Systems seminar UB-UPC, Universitat de Barcelona, December 2018.
- *On the connectivity of the Julia set and Newton's map*, Dynamical systems seminar, CalTech, March 2018.
- *Pot una component de Fatou ser no periòdica?* (in catalan), Seminari de matemàtiques, Universitat de Girona, March 2016.
- *Wandering domains in holomorphic dynamics* (in spanish), Seminario de Ecuaciones Diferenciales, Universidad de Granada, January 2016.
- *Holomorphic dynamics and quasiconformal surgery I and II*, Seminario de Matemáticas, Universitat Jaume I, May 2015.
- *Wandering domains for transcendental entire functions*, Seminari d'Anàlisi UAB-UB, Barcelona, Catalonia, February 2014.
- *A walk on wandering domains and Bishop's example*, Mathematics seminar at Open University in Milton-Keynes, UK, June 2014.
- *On the connectivity of the Julia set*, UIB Mathematics Seminar, Palma de Mallorca, Illes Balears, March 2014.
- *On Bishop's quasiconformal folding construction and wandering domains for transcendental entire functions*, Dynamical Systems seminar at Banach Center, Warszawa, Poland, January 2014.
- *Connectivity of the Julia set: from polynomial to meromorphic maps*, UB-UPC Dynamical Systems seminar, Barcelona, Catalunya, February 2013.
- *The escaping set for transcendental entire maps*, UB-UPC Dynamical Systems seminar, Barcelona, Catalunya, May 2012.
- *On the connectivity of the escaping set for complex exponential Misiurewicz parameters*, UAB Dynamical Systems seminar, Barcelona, Catalunya, November 2009.

- *On the connectivity of the escaping set for some entire transcendental functions*, Dynamical Systems seminar, Boston University, Boston, USA, May 2009.
- *Formas normales, ciclos límite y función de periodo para una familia de ecuaciones diferenciales en el plano* (in spanish), Colloquium at CIMAT, Guanajuato, Mexico, September 2008.
- *Structural stability of planar polynomial vector fields. The case of foliations*, Dynamical Systems seminar, Campinas, Brazil, September 2004.
- *On the local and global phase portrait of holomorphic equations*, Dynamical Systems Seminar, Beijing University, China, November 2003.
- *Mediació: Negociació amb informació incompleta i comunicació filtrada* (in catalan), *Seminari de Matemàtiques*, Universitat de les Illes Balears, Catalunya, Spain, February 2002.
- *Teoria de subhastes i el Teorema de l'equivalència del guany esperat* (in catalan), *Seminari de Matemàtiques*, Universitat de Girona, Catalunya, Spain, April 2002.
- *Mediated Bargaining*, Game theory seminar, Barcelona, Catalunya, Spain, March 2001.

## Talks in Conferences (since 2000)

- *Chaotic dynamics at the boundary of a basin of attraction via non-transversal intersections for a non-global smooth diffeomorphism*, On geometric complexity of Julia sets V, Poland, July 22-26, 2024.
- *Connectivity of the basin of attraction of fixed points for some root finding algorithms*, Catalan, Spanish and Poland Joint Mathematical Societies Meeting, Lodz, Poland, September 4-8, 2023.
- *Dynamics of the secant map near a critical 3-cycle*, Complex dynamics and connections to other fields, Cheçiny, Poland, March 27-31, 2023.
- *On the boundary of the basins of attraction for the secant method*, ICDEA2021 (Online), Sarajevo, Bosnia-Herzegovina, July 2021.
- *On the boundary of the basins of attraction for the secant method*, 8ECM (Online), Protoroz, Eslovenia, June 2021.
- *Univalent wandering domains*, DEA2019, Krakow, 16-20 September, 2019.
- *Wandering domains and post-singular values*, ICM2018, Rio de Janeiro, 1-9 August, 2018.
- *Wandering domains and (post)-singular values*, New developments in complex analysis and function theory, Crete, Grece, July 2-6 (2018)
- *Connectivity of the Julia set of Newton maps: A unified approach*, 7ECM, Berlin, 18-22 July, 2016.

- *Wandering domains for composition of entire functions*, Ergodic Theory and Dynamical System, Erwing Schrödinger Institute, Vienna, Austria, October 2015.
- *Absorbing domains and Baker domains for holomorphic maps*, Janina's birthday conference, Warsaw, Poland May 22, 2015.
- *Wandering domains in Eremenko-Lyubich's class and Bishop's example*, Perspective in Modern Complex Analysis (in honor to Professor Alexandre Eremenko's 60th birthday)", Bedlewo, Poland, July 2014.
- *Bishop's quasiconformal folding and wandering domains in Eremenko-Lyubich class*, The role of complex analysis in complex dynamics, ICMS, Edinburgh, Scotland, May 2013.
- *On the existence of absorbing domains and Baker domains*, Ergodic Methods in Dynamics, Banach Center Conferences at Bedlewo, Poland, April 22-28, 2012.
- *On the connectivity of the escaping set for complex exponential Misiurewicz parameters*, New trends in complex dynamics, Clay Institute, Cambridge, USA, May 2011.
- *Non-landing hairs in Sierpiński Julia sets of transcendental entire maps*, Transcendental dynamics, Warsaw, Poland, October 2010.
- *Transcendental entire maps and complex dynamics. The complex exponential family*, Joint Mathematical Conference CSASC, Prague, Czech Republic, January 2010.
- *On the connectivity of the escaping set for complex exponential Misiurewicz parameters*, The escaping set in transcendental dynamics, Oberwolfach, Germany, December 2009.
- *Joining polynomial and exponential combinatorics for some entire maps*, Aspects of transcendental dynamics (CODY-meeting), Bremen, Germany, May 2008.
- *Dynamical hairs as external rays for some entire maps*, PTM-AMS first joint meeting, Warsaw, Poland, 2007.
- *A criteria for at most one critical point of the period function for planar vector fields*, Barcelona conference on planar vector fields, Barcelona, Catalunya, Spain, 2006.
- *On the local and global phase portrait of holomorphic equations*, Geometric and Ergodic Theory in Dynamical Systems, Sao Carlos, Brazil, September 2004.
- *On the local and global phase portrait of holomorphic equations*, Families of Polynomial Vector Fields on the Plane, Institute H. Poincaré, Paris, 2003.
- *Mediation: Incomplete information bargaining with filtered communication*, First Brazilian Workshop of the Game Theory Society, Sao Paulo, Brazil, June 2002.
- *Isochronicity for a family of Hamiltonian polynomial vector fields*, Conference in Honor of Professor Oliva, Lisboa, Portugal, 2000.

## Co-organization of Schools, Conferences and Special Sessions

- *Topics in Complex Dynamics*, Summer School, Barcelona, June 2025.
- *Topics in Complex Dynamics*, Summer School, Barcelona, June 2023.
- *Topics in Complex Dynamics*, Spring School, Barcelona, April 2021.
- *Intensevie Research Progrma in Low dimensional dynamical systems and applications*, Centre de Recerca Matemàtica, February-May 2020 (partially cancelled because of the pandemic).
- *Topics in Complex dynamics 2019*, Barcelona, Catalonia, 25-29 March, 2019.
- *Barcelona Mathematical Days (BMD2017)*, Barcelona, Catalonia, 27-28 April, 2017.
- *Joint meeting of the Catalan, Spanish and Swedish mathematical societies*, Umeo, Sweden, 12-15 June 2017.
- *Joint meeting of the Czeck, Slovenian, Austrian, Slovakian and Catalan Mathematical Societies (CSASC2016)*, Barcelona, September 2016.
- *Joint meeting of the Edinburgh Mathematical Society and the Catalan Mathematical Society*, ICMS, Edinburgh, 28-30 May, 2015.
- *Topics in Complex Dynamics*, Spring School, Barcelona, November 2015.
- *New Perspectives in Discrete Dynamical Systems*, Tossa de Mar, Catalonia, Spain, October 2-4, 2014.
- *Topics in Complex Dynamics*, Spring School, Barcelona, June 2013.
- *New Trends in Dynamical Systems*, Salou, Catalunya, October 2012.
- *18th International Conference in Difference Equations and Applications*, Special session on Complex Dynamics, Barcelona, July 2012.
- *Topics in Complex Dynamics*, Spring school, Barcelona, June 2011.
- *8th AIMS Conference on Dynamical Systems, Differential Equations and Applications*, Special session on Complex Dynamical Systems, Dresden, May 2010.
- *Topics in Complex Dynamics*, Fall school, Barcelona, December 2009.
- *Dynamical Systems and Topology (in honor to Professor Robert L. Devaney)*, Tossa de Mar, Catalunya, April 2008.
- *Topics in Complex Dynamics*, Fall School, Barcelona, November 2007.
- *Topics in Complex Dynamics*, Spring School, Barcelona, April 2005.
- *First meeting of the AMS and the RSEM*, Special Session in Dynamical Systems, Sevilla, Spain, June 2003.

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## **Editorial boards**

- Qualitative theory of Differential Equations, Editor in board, 2018–2025.
- Journal of Difference Equations and Applications, Editor in board, 2012–2025.
- Notícies de la Societat Catalana de Matemàtiques (in catalan), Editor in chief, 2013–2015.