Joaquim Serra

CONTACT INFORMATION	ETH Zurich, Department of Mathematics	joaquim.serra@math.ethz.ch
	Rämistrasse 101, 8092 Zurich, Switzerland	

CURRENT positions

Associate Professor of Mathematics at ETH Zurich	06.2024 -
External scientific member at BCAM Bilbao	09.2021 -

PAST POSITIONS

Assistant Professor of Mathematics at ETH Zurich	01.2021 - 05.2024
SNF Ambizione Fellow at ETH Zurich	09.2018 - 12.2020
PI of SNF Ambizione grant (PZ00P2_180042)	
Postdoc at ETH Zurich	09.2016 - 08.2018
Group of Prof. A. Figalli (ERC 2017-2022 721675)	
Postdoc at WIAS Berlin	01.2016 - 09.2016
Group of Prof. E. Valdinoci (ERC 2011-2015 277749)	
Consultant at Arcvi Big Data Agency	04.2014 - 08.2015

EDUCATION

Ph.D. in Mathematics	2014
Universitat Politècnica de Catalunya (UPC)	
Advisor: Prof. **Xavier Cabré**	
Bachelor's and Master's degrees in Mathematics from UPC	2010

DATE OF BIRTH 20th October 1986

CITIZENSHIP Spanish

EDITORAL boards

- Editor of *Calculus of Variations and Partial Differential Equations* 01.2024 -
- Editor of *Ars Inveniendi Analytica* 07.2020 -

RESEARCH FUNDING

- Guarantor of Severo Ochoa 2021 Grant awarded to BCAM (4.000.000 EUR)
- PI of **ERC Starting Grant** "StableIF" (01.01.2018-31.12.2025, 1.398.125 EUR)
- PI of Starting grant from Fundación BBVA[1] (35.000 EUR)
- PI of SNF Ambizione grant PZ00P2_180042 (789.000 CHF)

PRIZES

- *Frontiers of Science Awards[2] 2023* from the Chinese government [**2 prizes** awarded to 2 different papers of which I am co-author]
- **EMS Prize 2020** from the European Mathematical Society.
- *José Luis Rubio de Francia Prize 2018* from the Royal Spanish Mathematical Society
- *Antonio Valle Prize 2019* from the Spanish Society of Applied Mathematics
- *Josep Teixidó Prize 2016* from the Catalan Mathematical Society

SUPERVISION OF PHD STUDENTS AND POSTDOCS

- Susanna Bertolini, PhD student at ETH[3] (09.2024-)
- Anthony Salib, PhD student at ETH[4] (09.2024-)
- Marco Badran, postdoc at ETH (09.2023-)
- Enric Florit, PhD student at ETH (09.2022-)
- Michele Caselli, PhD student at SNS-Pisa[5] (09.2021-)

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[1] Associated to Rubio de Francia Prize

[2] International prize awarded to 86 papers in all areas of Mathematics published in 2018– 2022 given by the government of China at the International Congress of Basic Science

[3] Co-supervised with Prof. Alessio Figalli

[4] Co-supervised with Prof. Georg Weiss

[5] Co-supervised with Prof. Andrea Malchiodi

- Federico Franceschini, PhD student at ETH[6] (09.2019-)
- Alessandro Audrito, postdoc at ETH (09.2020-12.2022)
- Simon Eberle, postdoc at BCAM[7] (09.2021-08.2023)

OTHER MENTORSHIPS [BACHELOR THESES NOT LISTED HERE]	

- Pascal Hadré (Univ. Bonn / ETH Zurich) — Master's thesis (04.2024-)
- Luca Giudici (ETH Zurich) — Master's thesis (03.2024-)
- Christian Amend (ETH Zurich) — Master's thesis (03.2024-)
- Antonio Casetta (ETH Zurich) — Master's thesis (02.2023-)
- Filippo Paiano (Uni. Pisa) — Master's thesis (02.2023-07.2023)
- Enric Florit (ETH Zurich) — Master's thesis (02.2023-07.2023)
- Giacomo Colombo (SNS Pisa) — Master's thesis (02.2022-07.2022)
- Julien Moy (ÉNS Paris) — research internship (02.2022-07.2022)
- Philippe Anjolras (ÉNS Paris) — research intership (02.2021-07.2021)
- Michele Caselli (ETH Zurich) — Master's thesis (02-2021-07.2021)
- Anthony Salib (ETH Zurich) — Master's thesis (09.2021-02.2022)
- Jingeon Ann (EPF Lausanne) — Master's thesis (09.2021-02.2022)

TEACHING EXPERIENCE

- *Analysis II*, ETH-Zurich, Spring 2024 (10 ECTS)
- *Differential Geometry II*, ETH-Zurich, Spring 2023 (10 ECTS)
- *Differential Geometry I*, ETH-Zurich, Fall 2022 (10 ECTS)
- *Differential Geometry II* ETH-Zurich, Spring 2022 (10 ECTS)
- *Differential Geometry I* ETH-Zurich, Fall 2021 (10 ECTS)
- *Seminar on Classical Elliptic Regularity Theory*, ETH-Zurich, Spring 2021 (14 sessions)
- *Seminar on Fully Nonlinear Elliptic Equations*, ETH-Zurich, Fall 2017 (14 sessions)
- Assistant for *Measure and integration*, ETH-Zurich, Spring 2017 (22 hours of exercises)
- Assistant for *Differential Geometry I*, ETH-Zurich, Fall 2016 (13 hours of exercises)

SELECTED TALKS AT CONFERENCES

- Geometric PDE, Warwick (United Kingdom), 12.2022
- Calculus of Variations and PDE, MFO Oberwolfach, 07.2022
- **Conference of the Australian Mathematical Society [plenary talk]** (online) 12.2021
- **8th European Congress of Mathematicians [EMS prize lecture]** (online) 06.2021
- **Barcelona Mathematical Days 2020 [plenary talk]** online, 10.2020
- Swedish Summer PDE at KTH, Stockhold (Sweden), 08.2019
- Oberwolfach Workshop "Partial Differential Equations", MFO Oberwolfach (Germany), 07.2019
- Non Standard Diffusions in Fluids, Kinetic Equations and Probability, Marseille (France), 12.2018
- Recent advances in Geometric Analysis, Pisa (Italy), 06.2018
- **IV Congreso de Jóvenes Investigadores de la RSME [plenary talk]**, Valencia (Spain), 09.2017
- Recent Advances in PDEs and the Calculus of Variations, Venice (Italy), 07.2017
- **23rd Rolf Nevanlinna Colloquium**, Zurich (Switzerland), 06.2017
- Nonlinear, nonlocal problems and stochastic methods, Helsinki (Finland), 12.2016
- Partial Differential Equations in Valencia, Valencia (Spain), 10.2015

SELECTED UNIVERSITY SEMINARS AND COLLOQUIA

- Colloquium of Università delli Studi di Firenze, 12.2023
- Brown University Colloquim (online), 10.2022

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[6]Co-supervised with Prof. Alessio Figalli
[7]Co-supervised with Prof. Luis Vega.

- Fields Geometric Analysis Colloquim (online), 12.2021
- IAS Analysis Seminar in Princeton (online), 12.2020
- Oberseminar (Max-Planck Institute + University) in Leipzig, 06.2020
- III Coloquio Premio Rubio de Francia at Universidad Auntónoma de Madrid, 10.2019
- Analysis Seminar at Universität Basel, 03.2017
- Oberseminar Analysis - Probability at MPI Lepzig, 07.2016
- Séminaire EDP-Analysen at University Lyon 1, 05.2016
- Analysis Seminar at UT Austin, 04.2016
- PDE seminar at Università di Roma Tor Vergata, 11.2013

MINI-COURSES TAUGHT
- 6h course on the obstacle problem at the "JISD" at Centre de Recerca Matematica in Barcelona (Spain), July 2023
- 8h course on the obstacle problem in the "Advanced PDE Seminar" at the Institute of Advanced Mathematics in Hangzhou (China), May 2019.
- 6h course on integro-differential elliptic equations in the INDAM intensive period "Contemporary research in elliptic PDEs and related topic", Bari, 05.2017 (6h)

VARIA
- Co-organizer of the conference "PDEs and Geometric Measure Theory" held at ETH Zürich from 29.10.2018 to 02.11.2018
- Co-Organizer of the "Analysis Seminar" of ETH
- Referee of scientific projects for several agencies in Europe
- Referee for most of the leading journals in Mathematics

LANGUAGES Catalan and Spanish (native), English (fluent), Italian (fluent), German (basic)

FAMILY 3 Children; born 2013, 2018, and 2021.