Ricardo Grande

Curriculum Vitae

Dept. of Mathematics, Office 2842
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Research Interests

Nonlinear Dispersive PDEs, Harmonic Analysis.

Academic Appointments

2020 - 2021 **Postdoctoral Assistant Professor**, *University of Michigan, Ann Arbor.*

- *Mentor:* Zaher Hani.

Education

2015 - 2020 **PhD in Mathematics**, *Massachusetts Institute of Technology*.

- *Advisor:* Gigliola Staffilani.
- *Thesis title:* The role of smoothing effect in some dispersive equations

2014 - 2015 **Master of Advanced Study in Mathematics**, *University of Cambridge*.

- *Essay:* Averaging Lemmas and the X-ray transform.
- *Directed by:* Clément Mouhot, *Grade*: Merit (First-class honours).

2010-2014 **Licenciatura en Matemáticas**, *Universidad del País Vasco (UPV-EHU)*.

- Valedictorian Award, *Final grade:* 9.69/10.

Publications

R. Grande, K. Kurianski, G. Staffilani, *Well-posedness of the Dysthe equation*, submitted, preprint available at `arxiv.org/abs/2006.13392`.

R. Grande, *Continuum limit for discrete NLS with memory effect*, submitted, preprint available at `arxiv.org/abs/1910.05681`.

R. Grande, *Space-time fractional Nonlinear Schrödinger equation*, SIAM J. Math. Anal, 51(5), 4172-4212.

R. Grande, I. Kovács, K. Kutnar, A. Malnič, L. Martínez, D. Marušič, *Equisizable partial sum families*, Journal of Algebraic Combinatorics 51, 273-296 (2020).

M. Conder, R. Grande, *On embeddings of circulant graphs*, Electronic Journal of Combinatorics 22 (2015), # P2.28.

Conferences and Workshops

May 2020 **Mathematics of Planet Earth: Analysis and Modelling**, Webinar (Invited speaker.)

May 2020 **Mathematical Questions in Wave Turbulence**, Banff International Research Station.

Jan 2020 **Winter School: Turbulence in fluids and PDEs**, Lausanne. (Invited speaker.)

Jan 2020 **Seminar**, GSSI L'Aquila. (Invited speaker.)

Jan 2020 **BCAM Scientific Seminar**, BCAM. (Invited speaker.)

Dec 2019 **Meeting: Simons Collaboration in Wave Turbulence**, Courant Institute.

Nov 2019 **Brown-BU-UMass Amherst seminar in PDE and Dynamics**, Brown University. (Invited speaker.)

Nov 2018 **Gran Sasso Quantum Meeting: From Many Particle Systems to Quantum Fluids**, GSSI L'Aquila.

Oct 2018 **FRG Meeting: Long-Term Dynamics of Nonlinear Dispersive and Hyperbolic Equations**, University of Chicago.

May 2018 **Conference on Nonlinear Waves**, Brown University.

May 2018 **School and Conference on Nonlinear Waves: Stability vs Turbulence**, celebrating the contributions of Jalal Shatah, Georgia Tech.

Sept 2016 **FRG Conference in Dispersive and Wave equations**, MIT.

July 2015 **BCAM Workshop on Harmonic Analysis and PDEs**, BCAM.

July 2014 **10th AIMS Conference on Dynamical Systems, Differential Equations and Applications**, ICMAT.

March 2014 **IV School of Functional Analysis and Applications**, Brownian Motion and Ito's formula, Universidad de Sevilla.

Teaching Experience

Fall 2020 **Math 116 - Calculus II**, University of Michigan.

Spring 2020 **Grader** for 18.615 - Introduction to Stochastic Processes, MIT.

Fall 2019 **Grader** for 18.085 - Computational Science and Engineering I, MIT.

Spring 2019 **Grader** for 18.615 - Introduction to Stochastic Processes, MIT.

Summer 2018 **UROP+ Research Supervisor**, MIT.

- *Student:* Zixuan Xu.
- *Project:* Almost Conservation Laws for KdV and Cubic NLS.

Spring 2018 **Recitation Instructor** for 18.03 - Differential Equations, MIT.

Fall 2017 **Recitation Instructor** for 18.02 - Multivariable Calculus, MIT.

Fall 2016 **Grader** for 18.085 - Computational Science and Engineering I, MIT.

Summer 2016 **UROP+ Research Supervisor**, MIT.

- *Student:* Eli Sadovnik.
- *Project:* A Central Limit Theorem for Fluctuations of Internal Diffusion-Limited Aggregation with Multiple Sources.

Awards and Fellowships

2015 **Summer internship position**, Basque Center for Applied Mathematics (BCAM).

- *Advisor*: Luis Vega.
- *Project:* Probabilistic interpretation of the Hardy uncertainty principle.

2014-2015 **La Caixa Europe Fellowship**, La Caixa Foundation.

- Full funding of master degree at the University of Cambridge.

2013-2014 **Collaboration Scholarship**, Government of the Basque Country.

- *Advisor*: Luis Escauriaza.
- *Project*: Harmonic Analysis and applications.

2012 **Summer Research Scholarship**, University of Auckland.

- *Advisor*: Marston Conder.
- *Project*: Embeddings of circulant graphs.

Languages

Basque, Mother tongue. *Euskararen Gaitasun Agiria [C1], 2009.*

Spanish, Mother tongue.

English, Fluent. *Certificate of Proficiency in English [C2], 2013.*

Italian, Good working knowledge.

French, Intermediate. *French IV at MIT, 2020.*

Portuguese, Good working knowledge. *Portuguese I-IV at MIT, 2017-18.*