

# GIOVANNI DEMATTEIS

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## PERSONAL INFORMATION

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Born April 17, 1991 in Savigliano (Italy)  
Citizenship: Italian

## WORK HISTORY

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02. 2020 – PRESENT

**RENSSELAER POLYTECHNIC INSTITUTE (RPI) – TROY, NY**  
**POSTDOC RESEARCH ASSOCIATE,**  
**DEPARTMENT OF MATHEMATICAL SCIENCES**

- 3 year position
- Supervised by Prof. Yuri Lvov, (RPI) and Kurt Polzin, Woods Hole Oceanographic Institution, Woods Hole (MA)
- Funding from ONR, grant N00014-17-1-2852
- Research on oceanic internal waves and parameterization of energy dissipation, a key component of global circulation models

11. 2018 – 10. 2019

**UNIVERSITY OF TURIN – ITALY**  
**RESEARCH FELLOW, PHYSICS DEPARTMENT**

- Supervised by Prof. Miguel Onorato
- Research on oceanic rogue waves and energy transport in random wave media

## EDUCATION

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10.2015 – 06.2019

**POLYTECHNIC OF TURIN, UNIVERSITY OF TURIN**  
**PhD IN APPLIED MATHEMATICS**

- Dissertation: "Large deviations for rare realizations of dynamical systems"
- Awarded "Cum Laude"
- Supervised by Prof. Lamberto Rondoni (Politecnico di Torino) and Prof. Eric Vanden Eijnden (New York University)
- 18 months spent at the Courant Institute of Mathematical Sciences, New York University (2016-2017)
- Results published in PNAS (first name)
- Winner for 2 years of the PhD Quality Prize awarded by Politecnico di Torino

09.2013 – 07.2015

**UNIVERSITY OF TURIN**  
**MS IN PHYSICS OF COMPLEX SYSTEMS, 110/110 CUM LAUDE**

- Thesis on statistical mechanics of nonlinear waves

09.2010 – 07.2013

**UNIVERSITY OF TURIN**  
**BS IN PHYSICS, 110/110 CUM LAUDE**

**SCIENTIFIC ACTIVITY**

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PUBLICATIONS (DETAILS ON GOOGLE SCHOLAR)	9 papers in international journals and 2 currently under review. Most noteworthy: PNAS, Impact Factor 9.4 (1 <sup>st</sup> name of 3 authors); PRX, IF 12.6 (1 <sup>st</sup> name of 4 authors); PRL, IF 8.4 (1 <sup>st</sup> name of 5 authors); Journal of Fluid Mechanics, IF 3.4 (1 <sup>st</sup> name of 2 authors) 153 total citations (Google Scholar)
PUBLICATIONS FEATURING MY RESEARCH	Articles in popular science magazines. "In this Issue" of PNAS; Scientific American; Quanta Magazine, including podcast episode; Physics viewpoint (of the American Physical Society); Saltwire (Canadian)
CONFERENCES AND SEMINARS	About 15 talks at international conferences or events since 2016 (reference to most of them can be found online). Most notable: ICIAM Valencia, 2019; StatPhys19 Buenos Aires; SIAM on PDE (Baltimore 2017). Participation to 4 Advanced International Summer Schools:
INVITED VISITS	1 week in Princeton (Environmental Engineering) 02-2019; 2 weeks at the University of East Anglia, Norwich UK (Applied Math) 11-2019; 1 week at RPI (Math) 05-2019; 1 week in Paris (UPMC, Applied Math) 07-2015
PEER REVIEW	Peer reviewer for international journals, including: Journal of Fluid Mechanics, IF 3.4; Journal of Statistical Physics, IF 1.2; Journal of Nonlinear Science, IF 2.1; Ocean Modelling, IF 3.2 Reviewer of thesis of MS in Physics (2021)
TEACHING EXPERIENCE	Teaching assistant for 3 courses: Calculus (60h, BS Engineering, Polytechnic of Turin), Nonlinear waves and turbulence (6h, Physics MS, University of Turin), Physical Oceanography (4h, BS Applied Math, RPI)
MENTORING	Co-supervisor of a Physics MS thesis and a Physics BS thesis (2019). Physics MS thesis reviewer and Board member for MS graduation in Physics (University of Turin, 2021)

Troy, 10/23/2020

