

## Felice Iandoli

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### CONTACT INFORMATION

Laboratoire Jacques Louis Lions  
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### RESEARCH INTERESTS

Microlocal Analysis, Dispersive Estimates, Wave and Schrödinger Equations, Dynamical Systems, Nonlinear Dispersive PDEs, Normal Forms

### CAREER AND EDUCATION

#### Laboratoire J.L. Lions, Sorbonne Université

Post-doctoral researcher funded by ERC ANADEL, *starting from October 1-st, 2019.*

#### Laboratoire J.A. Dieudonné, Université de Nice

Post-doctoral researcher funded by ERC ANADEL, *November 1-st, 2018-30 September, 2019.*

#### SISSA

Ph.D. in Mathematical analysis, models and applications.

The thesis has been defended on 26/09/2018, the examination has been passed *cum laude*.

- Title of the thesis: Local and almost global solutions for fully-nonlinear Schrödinger equations on the circle
- Advisors: Prof. Massimiliano Berti and Dr. Roberto Feola

#### University of Pisa

Master degree in mathematics, grade: 110/110 *cum laude*

- Title of dissertation: Teoria di scattering per NLS (eng: Scattering theory for NLS)
- Advisor: Prof. Nicola Visciglia

### PUBLICATIONS

- 1) F. IANDOLI, R. Scandone, *Dispersive estimates for Schrödinger operators with point interactions in  $\mathbb{R}^3$* , **Advances in Quantum Mechanics: Contemporary Trends and Open Problems**, A. Michelangeli and G. Dell'Antonio, eds., Springer INdAM Series, vol. 18, Springer International Publishing, (2017).
- 2) R. Feola, F. IANDOLI, *Local well-posedness for quasi-linear NLS with large Cauchy data on the circle*, **Annales de l'Institut Henri Poincaré (C) Non Linear Analysis**, 36(1): 119-164, 2019. 10.1016/j.anihpc.2018.04.003, (2018).
- 3) R. Feola, F. IANDOLI, *Long time existence for fully nonlinear NLS with small Cauchy data on the circle*, accepted on **Ann. Sc Norm. Pisa Cl. Sci.** (5), Vol XXII, 109-182, (2021).
- 4) J., Bernier, R. Feola, B. Grébert, F. IANDOLI, *Long-time existence for semi-linear beam equations on irrational tori*, published online on **J. Dyn. Diff. Equat.**, (2021). <https://doi.org/10.1007/s10884-021-09959-3>.
- 5) R. Feola, F. IANDOLI, *A non-linear Egorov theorem and Poincaré-Birkhoff normal forms for quasi-linear pdes on the circle*, preprint: [arxiv.org/abs/2002.12448](https://arxiv.org/abs/2002.12448), (2020).
- 6) R. Feola, F. IANDOLI, *Local well-posedness for the quasi-linear Hamiltonian Schrödinger equation on tori*, preprint: [arxiv.org/abs/2003.04815](https://arxiv.org/abs/2003.04815), (2020).
- 7) R. Feola, B. Grébert, F. IANDOLI, *Long time solutions for quasi-linear Hamiltonian perturbations of Schrödinger and Klein-Gordon equations on tori*, preprint: [arxiv.org/abs/2009.07553](https://arxiv.org/abs/2009.07553), (2020).
- 8) R. Feola, F. IANDOLI, F. Murgante, *Long-time stability of the quantum hydrodynamical system on irrational tori*, preprint: <https://arxiv.org/abs/2105.07243>, (2021). **(Accepted on Mathematics in Engineering)**

INVITED CONFERENCES	<p>Invited speaker at:</p> <ul style="list-style-type: none"> <li>• <i>Dynamics of nonlinear dispersive PDE's</i>, February 2018, La Thuile, Italy, Invited by Prof. Nicola Visciglia.</li> <li>• <i>Nonlinear Dispersive PDE's</i>, October 2018, Università Sapienza, Rome, Italy, Invited by Prof. Oana Ivanovici.</li> <li>• <i>Hamiltonian PDEs and nonlinear waves</i>, February 2019, La Thuile, Italy, Invited by Dr. David Lafontaine.</li> </ul>
SEMINARS	<ul style="list-style-type: none"> <li>• <i>Local and almost global solutions for quasi-linear Schrödinger equations</i>, 2020, Séminaire Enriques-Lebesgue, Milano-Nantes, via ZOOM, Invited by Prof. Dario Bambusi.</li> <li>• <i>Long time existence for small solutions of Hamiltonian or reversible quasilinear equations on the circle</i>, 2020, Séminaire de l'équipe EDP, IECL, Nancy, France, Invited by Dr. Ilaria Lucardesi.</li> <li>• <i>Long time solutions for the fully-nonlinear NLS on the circle</i>, 2020, Séminaire du LAGA, Paris 13, Paris, France, Invited by Prof. Jean Marc Delort.</li> <li>• <i>Local and almost global solutions for fully non-linear Schrödinger equations on the circle</i>, 2018, Laboratoire J.A. Dieudonné, Nice, France, Invited by Dr. Oana Ivanovici.</li> <li>• <i>On the quasi-linear Schrödinger equations on the circle</i>, 2018, Università di Pisa, Pisa, Italy, Invited by Prof. Vladimir Georgiev.</li> </ul>
VISITING RESEARCHER	<p>From October 1-st, to 31 October, 2018, Laboratoire J.A. Dieudonné, Nice, France, Invited by Prof. Oana Ivanovici.</p>
ATTENDED CONFERENCES	<ul style="list-style-type: none"> <li>• <i>Normal forms and large time behavior for nonlinear PDE</i>, 2015, IHES, Bures-sur-Yvette, France.</li> <li>• <i>Nonlinear Waves 2016: Summer School</i>, 2016, Centre Henri Lebesgue, Nantes, France.</li> <li>• <i>Hamiltonian Dynamics, PDE's and Waves on the Amalfi coast</i>, 2016, Maiori, Italy.</li> <li>• <i>Winter School "Dynamics and PDE's"</i>, 2017, Saint-Etienne de Tinée, France.</li> <li>• <i>Linear and Nonlinear Wave Phenomena: Stability, Propagation of Regularity and Turbulence</i>, 2018, Cortona, Italy.</li> <li>• <i>Quantum Resonances and Related Topics (conference in honor of André Martinez)</i>, 2019, Paris, France.</li> <li>• <i>Dispersive Waves and Related Topics (conference in honor of Gilles Lebeau)</i>, 2019, Bergen, Norway.</li> <li>• <i>New Trends in Propagation of Linear and Nonlinear Wave Phenomena</i>, 2019, Erice, Sicily.</li> </ul>
EXPERIENCE AS A PEER-REVIEWER	<p>MDPI Mathematics</p>
TEACHING (IN FRENCH)	<p>36h TD: <i>Séries et Séries de fonctions</i>, 2020-2021, UPMC (Sorbonne Université), L2  36h TD: <i>Equations différentielles</i>, 2020-2021, UPMC (Sorbonne Université), L2</p>
SPOKEN LANGUAGES	<ul style="list-style-type: none"> <li>• Italian: mother tongue</li> <li>• English: fluent</li> <li>• French: fluent</li> </ul>