

CURRICULUM VITAE

Dr. François Genoud
Born on September 23, 1978
Swiss Citizen
Alma Mater: EPFL

Cours de Mathématiques Spéciales
EPFL – Station 4
1015 Lausanne, Switzerland
+41 21 693 22 91

EDUCATION

- 2005-2008** PhD in Mathematics under the supervision of Prof. C.A. Stuart, École Polytechnique Fédérale de Lausanne, Switzerland
Thesis: *Théorie de bifurcation et de stabilité pour une équation de Schrödinger avec une non-linéarité compacte*
- 2004-2005** MSc in Physics under the supervision of Prof. C.-E. Pfister, EPFL
Thesis: *Around the theorem of Whittaker–Shannon–Kotel’nikov*
- 2002-2003** One year exchange program at ETH Zurich, Switzerland
- 2000-2005** Undergraduate studies in Physics at EPFL

EMPLOYMENT

- 2018-** Director of the Cours de Mathématiques Spéciales, EPFL
- 2017-2018** Associate Professor at the Université Libre de Bruxelles (ULB), Belgium
- 2015-2017** Assistant Professor Tenure Track in Analysis, Delft University of Technology, Delft, The Netherlands
- 2013-2014** Postdoctoral Researcher on the ERC Advanced Grant *Nonlinear Studies of Water Flows with Vorticity* held by Prof. A. Constantin, University of Vienna, Austria
- 2010-2013** Research Associate, Heriot-Watt University, Edinburgh, Scotland
- 2009-2010** Prospective Research Fellow of the Swiss National Science Foundation, OXPDE, Mathematical Institute, University of Oxford, England
- 2005-2008** Teaching and Research Assistant, Department of Mathematics, EPFL
- 2001-2005** Teaching Assistant, Departments of Physics, Mathematics, and Cours de Mathématiques Spéciales, EPFL

INVITED (CONTRIBUTED) TALKS IN INTERNATIONAL CONFERENCES AND WORKSHOPS

- (forthcoming) Forum of PDE, Bedlewo conference center, Poland, September 2026
- Maxwell Institute Mini-Symposium on Analysis and PDEs, November 2024
- (contributed) International Workshop on Operator Theory and its Applications, University of Kent, August 2024
- Nonlinear waveguides and related topics, Toulouse, October 2018
- Nonlinear phenomena in dispersive equations, Lille, May 2018
- First Belgium Chile Italy Conference in PDEs, ULB, Brussels, November 2017
- French-American Conference on Nonlinear Dispersive PDEs, CIRM, Marseille, France, June 2017
- BeNeLuX Mathematical Congress, Amsterdam, Netherlands, March 2016

Nordic Congress of Mathematicians, Stockholm, March 2016

Nonlinear Phenomena in Optics: Theory and Experiments, Besançon, France, November 2015

Besançon Colloquium on Dispersive PDE's and Related Problems, Besançon, January 2015

Workshop on Dispersive Equations with Nonlocal Dispersion III, Wolfgang Pauli Institute, Vienna, October 2014

Thirteenth International Conference Zaragoza–Pau on Mathematics, Jaca, Spain, September 2014

Mathematical Aspects of the Physics with Non-Self-Adjoint Operators, ICMS, Edinburgh, March 2013

Twelveth International Conference Zaragoza–Pau on Mathematics, Jaca, Spain, September 2012

Variational and Topological Methods: Theory, Applications, Numerical Simulations, and Open Problems, Northern Arizona University, Flagstaff, USA, June 2012

(contributed) Equadiff 2011, Loughborough, England, August 2011

Eleventh International Conference Zaragoza–Pau on Mathematics, Jaca, Spain, September 2010

Emerging Problems in Nonlinear Analysis and Differential Equations: Advances in Theory and Applications, University of Glasgow, Scotland, June 2010

INVITED SEMINAR TALKS

Séminaire de Physique Mathématique et Equations aux Dérivées Partielles, Université Sorbonne Paris Nord, Paris, November 2025

Séminaire Equations aux Dérivées Partielles, Université Marie et Louis Pasteur, Besançon, France, May 2024

Seminar, Vrije Universiteit, Amsterdam, Netherlands, June 2016

Seminar, Eindhoven University of Technology, Netherlands, June 2016

Séminaire MIP, Université Paul Sabatier, Toulouse, May 2016

Dynamic Analysis Seminar, University of Amsterdam, Netherlands, February 2016

Analysis Lunch Seminar, Leiden University, Netherlands, June 2015

Analysis Colloquium, TU Delft, Netherlands, May 2015

Seminar on Nonlinear Differential Problems, University of Rome La Sapienza, Italy, April 2015

Seminar, University of Pisa, Italy, April 2015

Quantenmechanik und Mathematische Physik, LMU, Munich, Germany, May 2014

Séminaire d'Analyse, EPFL, Lausanne, Switzerland, May 2014

Séminaire Physique Mathématique et EDP, Université Paris 13, France, September 2013

Séminaire AN-EDP, Université Lille 1, France, April 2013

Séminaire du CeReMath, Université Toulouse 1 Capitole, France, November 2012

Séminaire MIP, Université Paul Sabatier, Toulouse, November 2012

PDE Seminar, University of California, Davis, USA, June 2012

Applied Analysis Seminar, University of Strathclyde, Glasgow, March 2012

Analysis Seminar, University of Birmingham, England, February 2012
 Séminaire d'Analyse Non-linéaire, Free University of Brussels, Belgium, December 2011
 Analysis Seminar, Jiao Tong University, Shanghai, China, March 2011
 PDE Seminar, East China Normal University, Shanghai, February 2011
 Analysis Seminar, Heriot–Watt University, November 2010
 PDE Seminar, University of Bath, England, February 2010
 Séminaire d'Équations aux Dérivées Partielles, Université de Besançon, France, February 2010
 Lunchtime Seminars of OxPDE, Mathematical Institute, University of Oxford, January 2010
 Séminaire du CeReMath, Université Toulouse 1 Capitole, November 2009
 Séminaire de Mathématiques et Applications, Université de Pau, France, November 2009
 OxPDE Day, Mathematical Institute, University of Oxford, November 2009
 Lunchtime Seminars of OxPDE, Mathematical Institute, University of Oxford, March 2009
 Séminaire de Physique Mathématique, Institut Fourier, Grenoble, France, January 2009
 Talks in Mathematical Physics, ETH Zurich, June 2007

ORGANIZATION OF SCIENTIFIC EVENTS

Analysis Seminar, EPFL, (1-2 guests per year since 2020)
 Analysis Colloquium, TU Delft, 2016/2017 (main organizer)
 11th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Orlando, USA, 1–5 July 2016: special session ‘Nonlinear Waves in Dispersive Equations’
 NDE (Nonlinear Dispersive Equations) Seminar, TU Delft, Autumn–Spring 2015/2016
 Conference on Variational and Topological Methods in the Study of Nonlinear Problems, Besançon, France, 29 June–1 July 2015
 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Madrid, Spain, 7–11 July 2014: special session ‘Analytical Aspects of the Dynamics of Nonlinear Schrödinger Equations’
 GAP (Geometry, Analysis and Physics) Seminar, University of Vienna, jointly with the Vienna University of Technology, Summer Semester 2014

SELECTED PUBLICATIONS

F. Genoud, S. Rota Nodari, Standing wave solutions of a quasilinear Schrödinger equation. Part I: The low frequency limit, *Nonlinear Differ. Equ. Appl.* (2026), 33:43.
 F. Genoud, S. Le Coz, J. Royer, A minimal mass blow-up solution on a nonlinear quantum star graph, to appear in *J. Differential Equations*, preprint <https://arxiv.org/abs/2302.09678>
 E. Csobo, F. Genoud, Minimal mass blow-up solutions for the L^2 critical NLS with inverse-square potential, *Nonlinear Anal.* **168** (2018), 110–129.
 S. Bachmann, F. Genoud, Mean-field limit and phase transitions for nematic liquid crystals in the continuum, *J. Stat. Phys.* **168** (2017), 746–771.

- V. Combet, F. Genoud, Classification of minimal mass blow-up solutions for an L^2 critical inhomogeneous NLS, *J. Evol. Equ.* **16** (2016), 483–500.
- F. Genoud, B.A. Malomed and R.M. Weishäupl, Stable NLS solitons in a cubic-quintic medium with a delta-function potential, *Nonlinear Anal.* **133** (2016), 28–50.
- S. de Bièvre, F. Genoud, S. Rota Nodari, Orbital stability: analysis meets geometry, in: C. Besse, J.C. Garreau (eds.), *Nonlinear Optical and Atomic Systems*, Lecture Notes in Mathematics 2146, Springer, 2015, pp. 147–273.
- F. Genoud, D. Henry, Instability of equatorial geophysical water waves with an underlying current, *J. Math. Fluid Mech.* **16** (2014), 661–667.
- F. Genoud, Global bifurcation for asymptotically linear Schrödinger equations, *NoDEA Nonlinear Differential Equations Appl.* **20** (2013), 23–35.
- F. Genoud, B.P. Rynne, Landesman-Lazer conditions at half-eigenvalues of the p -Laplacian, *J. Differential Equations* **254** (2013), 3461–3475.
- F. Genoud, An inhomogeneous L^2 critical nonlinear Schrödinger equation, *Z. Anal. Anwend.* **31** (2012), 283–290.
- F. Genoud, A smooth global branch of solutions for a semilinear elliptic equation on $\mathbb{R}^N$, *Calc. Var. Partial Differential Equations* **38** (2010), 207–232.
- F. Genoud, Bifurcation and stability of travelling waves in self-focusing planar waveguides, *Adv. Nonlinear Stud.* **10** (2010), 357–400.
- F. Genoud, C.A. Stuart, Schrödinger equations with a spatially decaying nonlinearity: existence and stability of standing waves, *Discrete Contin. Dyn. Syst.* **21** (2008), 137–186.