

Curriculum vitae of Benoît Pausader April 2011

French citizen. Single.

Address:

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Education:

2002: École normale supérieure de Lyon.
2004: Erasmus semester, Uppsala university.
2005: Agrégation de mathématique, Rank 11.
Master of pure and applied mathematics.
2008: PhD defense, advisor: Emmanuel Hebey, university of Cergy-Pontoise.

Position:

2006: Assistant moniteur normalien, Cergy-Pontoise university.
2008: Assistant professor, Brown University.

Publications:

- [1] Scattering and the Levandosky-Strauss conjecture for fourth order nonlinear wave equations, *J. Differential Equations*, 241 (2), (2007), 237–278.
- [2] Global well-posedness for energy critical fourth-order Schrödinger equations in the radial case, *Dynamics of PDE*, 4 (3), (2007), 197–225.
- [3] The focusing energy-critical fourth-order Schrödinger equation with radial data, *Discrete Contin. Dyn. Syst.* 24 (2009), no. 4, 1275–1292.
- [4] The cubic fourth-order Schrödinger equation, *J. Funct. Anal.* 256 (2009), 8, 2473–2517.
- [5] Analyticity of the nonlinear scattering operator (with W.A. Strauss), *Discrete Contin. Dyn. Syst.* 25 (2009), no. 2, 617–626.
- [6] Scattering for the Beam equation in small dimensions, *Indiana. Univ. Math. J.*, 59 (2010), no. 3, 791–822.
- [7] The mass-critical fourth-order Schrödinger equation in high dimensions (with S. Shao), *J. Hyp. Diff. Equ.*, 7 (2010), no. 4, 651–705.
- [8] The linear profile decomposition for the fourth order Schrödinger equation (with J.C. Jiang and S. Shao), *J. Differential Equations* 249 (2010), 2521–2547.
- [9] Global Smooth Ion Dynamics in the Euler-Poisson System (with Y. Guo), *Comm. Math. Phys.* 303 (2011), 89–125.
- [10] On the global well-posedness of energy-critical Schrödinger equations in curved spaces (with A. Ionescu and G. Staffilani), *Analysis and PDE*, to appear.

Preprints:

- [11] Global well-posedness of the energy-critical defocusing NLS on $\mathbb{R} \times \mathbb{T}^3$, (with A. Ionescu), 2011.
- [12] The energy-critical defocusing NLS on \mathbb{T}^3 , (with A. Ionescu), 2011.

Expository articles:

- [1] An introduction to fourth order nonlinear wave equations, (with E. Hebey), available at <http://www.math.brown.edu/benoit/>
- [2] Scattering for the Beam equation, *Proceedings of GDR "analyse des équations aux dérivées partielles"*, Évian, 2008.

Invited talks:

- 2007: Nonlinear hyperbolic equations and related topics, SNS Pisa.
 PDE seminar, Brown University, Providence.
 PDE and Mathematical Physics seminar, University of Paris *XIII*.
 Analysis seminar, ETH Zurich.
- 2008: Analysis and geometry seminar, University of Nice.
 GDR Analyse des équations aux dérivées partielles, Évian.
 PDE seminar, Brown University, Providence.
- 2009: Analysis seminar, Princeton University.
 AMS session "Effective Dynamics and Interactions of localized structures in Schrödinger type equations", Worcester.
 Analysis seminar, MIT, Boston.
 Analysis seminar, Brown University, Providence.
 AMS session "Fluid dynamics", UC Riverside.
 Analysis seminar, UConn, Storrs.
 Analysis seminar, U. Wisconsin, Madison.
- 2010: Analysis seminar, U. of Tunis.
 Analysis seminar, McGill U., Montreal.
 PDE seminar, U. Minnesota, Minneapolis.
 Annual FRG meeting, Brown U., Providence.
 PDE seminar, Beijing International Center for Mathematical Research, Beijing.
 Analysis seminar, Iapcm, Beijing.
 Analysis seminar, Brown university.
 Analysis seminar, Princeton University.
 Analysis seminar, UT Austin.
 Analysis seminar, Cornell U, Ithaca.
- 2011: Colloquium, UBC, Vancouver.
 Colloquium, Michigan State U., East Lansing.
 Analysis seminar, Courant institute, NY.
 Brown/Paris 6 videoconference seminar, Brown university.
 AMS session "Harmonic analysis and PDE", Statesboro, GA.
 Nonlinear analysis and PDE, Paris 6 - 7 - ENS.
 PDE seminar, Rennes University.
 Brown/B-U dynamical system seminar, Providence.
 Analysis seminar, Princeton University.
 Applied Analysis and Computational Math seminar, UMass, Amherst.
 Analysis seminar, UCLA.
 AMS session "Harmonic analysis and PDE", Salt Lake city, UT.

Teaching experience:

- 2006: Association "Math En Jean".
 Basic Calculus.

- 2007: Association “Math En Jean”.
 Humanitarian volunteering in Madagascar.
 Calculus, prépa ensi.
 Series.
- 2008: Calculus, prépa ensi.
 Intermediate calculus (for engineer).
- 2009: Linear algebra.
 Honors calculus.
- 2010: Analysis.
 Linear Algebra.
 1D Calculus (for engineers).
- 2011: PDE.

Invitations in other departments:

- 2007: Scuola normale superiore di Pisa.
 Brown University, R.I.
 ETH Zurich.
- 2009: MIT, Boston.
 UW, Madison.
- 2010: Université de Tunis.
 UMinn, Minneapolis.
 Iapcm, Beijing, China.
 UCLA, Los Angeles.
- 2011: Princeton University, NJ.
 Peking University, Beijing, China.

Languages:

French, English, Spanish.

Awards:

NSF- Grant “Scaling limits in dispersive equations” (DMS-1 069243).

Service to the community:

Co-organiser of the Brown/Paris 6 videoconference seminar on analysis of PDE (2009-2010), co-organiser of the Brown PDE seminar (2010-2011).

Referee work for Proc. of the Math. Soc. of Edimburgh, JDE, JMAA, JAPC, Pot. Anal., SIMA, Comm. Math. Sci., Nonlinearity, SIAP, Duke Math. J., Dynamics of PDE, IMRN, Analysis and PDE, Comm. PDE, J. Math Phys.