

Zaher Hani

CONTACT INFORMATION

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DATE OF BIRTH

October, 1986.

RESEARCH INTERESTS

Partial differential equations, real-variable harmonic analysis, infinite dimensional Hamiltonian dynamics.

EDUCATION

2007-now: University of California, Los Angeles, California USA.

- Ph.D. Candidate, Mathematics, (expected graduation date: June 2011).
Dissertation Topic: *Global and dynamical aspects of nonlinear dispersive equations on compact manifolds.*
Advisor: Terence Tao.
- M.A., Mathematics, December 2008.

2004-2007: American University of Beirut, Lebanon.

Bachelor of Science in Mathematics (with high distinction).

HONORS AND AWARDS

- 2008-2011** Huang Fellowship, *UCLA*.
- 2008** Horn-Moez Prize for Excellence in First Year Graduate Studies, *UCLA*.
- 2007-2008** Pauley Fellowship, *UCLA*.
- 2007** The Muhanna Mathematics Award of Excellence, The Nicolas Jabr Prize, and The Philip Hitti Prize, *American University of Beirut*.
- 2004-2007** Full Scholarship from CNRS of Lebanon (*Conseil National de la Recherche Scientifique*).

Member of AMS and MAA.

PUBLICATIONS

Global well-posedness of the cubic nonlinear Schrödinger equation on compact manifolds without boundary. Submitted to American Journal of Mathematics, arXiv:1008.2826v1.

A bilinear oscillatory integral estimate and bilinear refinements to Strichartz estimates on closed manifolds, Submitted to Analysis and PDE, arXiv:1008.2827v1.

RESEARCH IN PROGRESS

Weak turbulence phenomena and energy cascade for some nonlinear Schrödinger equations on \mathbf{T}^2 , Strichartz estimates on rational and irrational tori.

TEACHING
EXPERIENCE

University of California, Los Angeles:

Teaching Assistant

- Fall 2009** Math 246A Graduate Complex Analysis.
Spring 2009 Math 32B: Second course on Calculus of Several Variables.
Spring 2008 Math 32B: Second course on Calculus of Several Variables.
Winter 2008 Math 32A: First course on Calculus of Several Variables.

SEMINAR TALKS

- Nov. 2010** *MIT Analysis/PDE seminar*: Bilinear Strichartz estimates and global well-posedness of cubic NLS on compact manifolds.
Nov. 2010 *University of Chicago Calderon-Zygmund Analysis Seminar*: Bilinear Strichartz estimates and global well-posedness of cubic NLS on compact manifolds.
Oct. 2010 *UCLA*: Bilinear Strichartz estimates and global well-posedness of cubic NLS on compact manifolds.
Spring 2010 *UCLA Elliptic PDE Seminar*: The Dirichlet problem, 2 talks.
Winter 2010 *UCLA Water Wave Seminar*: Local well-posedness of 2D water waves without surface tension (after S. Wu), 2 talks.
Fall 2009 *UCLA*: On Bourgain's Fourier Truncation (high-low) method, 2 talks.
Spring 2008 *UCLA*: Aspects of asymptotic behaviour of nonlinear Schrödinger equation in periodic and non-periodic regimes, 2 talks.
Winter 2008 *UCLA*: Introduction to classical KAM theory, (2 talks).
Fall 2008 *UCLA*: Fourier restriction phenomena to certain lattice subsets and applications to periodic NLS (after J. Bourgain), 2 talks.

CONFERENCES
ATTENDED

- November 2010** Southern California Analysis and PDE conference, UCLA.
October 2010 AMS sectional meeting, UCLA.
April 2010 The Thirteenth Rivière-Fabes Symposium on Analysis and PDE, University of Minnesota.
November 2009 Southern California Analysis and PDE conference, UC Irvine.
August 2009 Workshop on Nonlinear dispersive and geometric evolution problems: singularities and asymptotics, PIMS Institute, UBC, Vancouver, Canada.
June 2009 Dispersive equations and nonlinear waves and dispersion, IHP, Paris, France.
February 2009 Southern California Analysis and PDE conference, UCLA.

REFERENCES

- Terence Tao (thesis advisor), UCLA, *E-mail*: tao@math.ucla.edu,
- Rowan Killip, UCLA, *E-mail*: killip@math.ucla.edu,
- Monica Visan, UCLA, *E-mail*: visan@math.ucla.edu,

November 2010,
Los Angeles, California