

Li-Cheng Tsai

Curriculum Vitae

Department of Mathematics, Stanford University
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EDUCATION

Stanford University
Ph.D. Mathematics, 2011–2016
Thesis advisor: Professor Amir Dembo
Academia Sinica, Taipei, Taiwan
Research Trainee, 2010–2011
Mentor: Professor Tai-Ping Liu
National Taiwan University
B.S. Physics, minor in Mathematics, 2005–2009

AWARDS

2015 Graduate Fellow, Kavli Institute for Theoretical Physics

RESEARCH INTERESTS

Asymptotic behaviors of interacting particle systems arising from mathematical physics, and the interplay between partial differential equations and stochastic partial differential equations.

PUBLICATIONS

- 2015 [7] Ivan Corwin and Li-Cheng Tsai. KPZ equation limit of higher-spin exclusion processes Submitted. *arXiv:1505.04158*
- [6] Amir Dembo and Li-Cheng Tsai. Equilibrium Fluctuation of the Atlas Model. Submitted. *arXiv:1503.03581*
- [5] Li-Cheng Tsai. Infinite Dimensional Stochastic Differential Equations for Dyson's Model. *Probab. Theory Related Fields, in print.*
- 2014 [4] Hung-Wen Kuo, Tai-Ping Liu, and Li-Cheng Tsai. Equilibrating effects of boundary and collision in rarefied gases. *Comm. Math. Phys.*, 328(2)421-480, June 2014.
- 2013 [3] Amir Dembo and Li-Cheng Tsai. Weakly Asymmetric Non-Simple Exclusion Process and the Kardar-Parisi-Zhang Equation. *Comm. Math. Phys.*, in print. *arXiv:1302.5760*
- [2] Hung-Wen Kuo, Tai-Ping Liu, and Li-Cheng Tsai. Free Molecular Flow with Boundary Effect. *Comm. Math. Phys.*, 318(2)375-409, March 2013.
- 2011 [1] Li-Cheng Tsai. Viscous Shock Propagation with Boundary Effect. *Bulletin, Inst. Math. Academia Sinica (N.S.)*, Vol. 6 (2011), No. 1.

INVITED TALKS

- 2015 Probability Seminar, Stanford University, November
 Probability Seminar, Kyushu University, Japan, November
 Stochastic Analysis on Large Scale Interacting Systems, RIMS, Japan, October
 Random Matrix and Probability Theory Seminar, Harvard University, September
 Probability Seminar, Columbia University, September
 Stochastic Portfolio Theory and related topics, May
- 2014 Probability Seminar, Princeton University, November
 Probability Seminar, Columbia University, November
 Stochastic Integrable Systems Reading Seminar, University of Warwick, June
- 2013 Combinatorial Representation Theory Seminar, Stanford University, November
 Student Probability/PDE Seminar, UC Berkeley, March

CONFERENCES

- 2014 MSRI Summer School: Stochastic Partial Differential Equations, July
 Stochastic Analysis: Around the KPZ Universality Class, Oberwolfach, Germany,
 June
 Seminar on Stochastic Processes, University of California, San Diego, March
- 2013 Cornell Probability Summer School, Cornell University, New York, July

TEACHING EXPERIENCE

- Section Leader, ODE with Linear Algebra, Winter 2015
- Section Leader, Calculus (accelerated), Winter 2014
- Section Leader, Calculus (accelerated), Fall 2012

REFeree SERVICE

- Referee, Annals of Applied Probability