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 [8] Wenpin Tang and Li-Cheng Tsai. Optimal Surviving Strategy for Drifted Brownian Motions with Absorption Submitted. *arXiv:1512.04493*

[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.*

[4] Amir Dembo and Li-Cheng Tsai. Weakly Asymmetric Non-Simple Exclusion Process and the Kardar-Parisi-Zhang Equation. *Comm. Math. Phys.*

2014 [3] Hung-Wen Kuo, Tai-Ping Liu, and Li-Cheng Tsai. Equilibrating effects of boundary and colllision in rarefied gases. *Comm. Math. Phys., 328(2)421-480.*

2013 [2] Hung-Wen Kuo, Tai-Ping Liu, and Li-Cheng Tsai. Free Molecular Flow with Boundary Effect. *Comm. Math. Phys., 318(2)375-409.*

2011 [1] Li-Cheng Tsai. Viscous Shock Propagation with Boundary Effect. *Bull. Inst. Math. Acad. Sin. (N.S.) 6(1)1-25..*

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