

Curriculum Vitae

Personal information:

Name: Amit Kumar Chatterjee

Designation: Assistant Professor

Affiliation: Department of Physics,
Ramakrishna Mission Vidyamandira,
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Date of Birth: 29/11/1990

Permanent Address: Jadunath Bati, Halisahar, West Bengal 743135

Educational qualification:

Degree	Year of completion	Institution	Marks (%)
Ph. D.	2019	Saha Institute of Nuclear Physics	
M.Sc	2013	JadavpurUniversity	79.44
B.Sc	2011	JadavpurUniversity	78.67
Higher Secondary	2008	Kanchrapara Harnett High School (WBCHSE)	83.80
Secondary	2006	Kanchrapara Harnett High School (WBBSE)	92.88

Ph. D. details:

Thesis title: Exactly Solvable Driven Interacting Particle Systems

<http://www.hbni.ac.in/phdthesis/phys/PHYS05201304011.pdf>

Work place: Saha Institute of Nuclear Physics, West Bengal 700064

Supervisor: Prof. Pradeep Kumar Mohanty (currently at IISER Kolkata)

Degree awarded on: 02nd April, 2019 (thesis submitted on 30/10/2018)

Research Experience:

- Post-doctoral fellow, Yukawa Institute for Theoretical Physics, Kyoto University (16/11/2021- 02/11/2023)
[Supervisor: Prof. Hisao Hayakawa]
- Post-doctoral fellow, International Centre for Theoretical Sciences (ICTS-TIFR), Bengaluru (02/11/2018-12/11/2021)
[Supervisors: Prof. Anupam Kundu, Prof. Manas Kulkarni]

Research areas of interest:

Non-equilibrium Statistical Physics, Nonlinear dynamics and Chaos

Academic achievements:

- Ranked 18 in CSIR NET exam, awarded CSIR fellowship, India (2013)
- Ranked 14 in JEST exam, India (2013)
- DST INSPIRE scholarship (2008-2013)

Talk/Poster presentation :

- Talk at APS (American Physical Society) March meeting, 2023
- Talk at 8th Indian Statistical Physics Community meeting, 2023
- Talk at the 25th Anniversary German-Japanese Symposium, 2022
- Talk at the Autumn Meeting of The Physical Society of Japan, 2022
- Talk at 15th Asia Pacific Physics Conference (APPC15), 2022
- Talk at 7th Indian Statistical Physics Community meeting, 2020
- Poster at STATPHYS KOLKATA IX, 2016
- Poster at STATPHYS KOLKATA VIII, 2014

Courses taught:

Statistical Mechanics, Classical Mechanics, Numerical methods

List of publications:

1. *Quantum Mpemba effect in a quantum dot with reservoirs*, Amit Kumar Chatterjee, S. Takada and H. Hayakawa, *Phys. Rev. Lett.* 131, 080402 (2023). [**Editors' suggestion**]

2. *Counter-flow induced clustering: exact results*, Amit Kumar Chatterjee, H. Hayakawa, *Phys. Rev. E* 107, 054905 (2023).
3. *Multi species asymmetric simple exclusion process with impurity activated flips*, Amit Kumar Chatterjee, H. Hayakawa, *SciPost Physics* 14, 016 (2023).
4. *Dynamical regimes of finite temperature discrete nonlinear Schrödinger chain*, Amit Kumar Chatterjee, M. Kulkarni and A. Kundu, *Phys. Rev. E* 104, 044136 (2021).
5. *Spatiotemporal spread of perturbations in a driven dissipative Duffing chain: An out-of-time-ordered correlator approach*, Amit Kumar Chatterjee, A. Kundu and M. Kulkarni, *Phys. Rev. E* 102, 052103 (2020). [**Editors' suggestion**]
6. *Assisted exchange models in one dimension*, Amit Kumar Chatterjee and P. K. Mohanty, *Phys. Rev. E* 98, 062134 (2018).
7. *Negative differential mobility in interacting particle systems*, Amit Kumar Chatterjee, U. Basu and P. K. Mohanty, *Phys. Rev. E* 97, 052137 (2018).
8. *Matrix product states for interacting particles without hardcore constraints*, Amit Kumar Chatterjee and P. K. Mohanty, *J. Phys. A: Math and Theor.* 50, 495001 (2017).
9. *Zero range and finite range processes with asymmetric rate functions*, Amit Kumar Chatterjee and P. K. Mohanty, *J. Stat. Mech.* 2017, 093201 (2017).
10. *Phase coexistence and spatial correlations in reconstituting k-mer models*, Amit Kumar Chatterjee, B. Daga and P. K. Mohanty, *Phys. Rev. E* 94, 012121 (2016).
11. *Cluster-factorized steady states in finite-range processes*, Amit Chatterjee, P. Pradhan and P. K. Mohanty, *Phys. Rev. E* 92, 032103 (2015).