## Sirshendu Bhattacharyya

DATE OF BIRTH	17th May, 1985	
Contact Information	Department of Physics Raja Rammohun Roy Mahavidyalaya Radhanagar, Hooghly 712406 West Bengal, India	
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Research Interests	Statistical and Condensed Matter Physics: Classical and Quantum Spin System, No equilibrium Dynamics, Quantum Phase Transition, Kibble-Zurek Mechanism. Evolutionary Game Theory: Simulation and analytics of evolutionary dynamics.	n-
Education	Secondary Examination 20	01
	West Bengal Board of Secondary Education	
	92.75% marks	
	Higher Secondary Examination20	03
	West Bengal Council of Higher Secondary Education	
	92.60% marks	
	Graduation 20	06
	Jadavpur University, Kolkata, India	
	B.Sc. (Honours) in Physics with $74.83\%$ marks	
	Post Graduation 20	08
	Jadavpur University, Kolkata, India	
	M.Sc. in Physics with $80.63\%$ marks	
	Special Qualification 20	07
	Qualified the National Eligibility Test (NET)	
	Conducted by UGC (India)	
	<b>Ph.D.</b> 20	18
	Thesis submitted in the University of Calcutta, Kolkata, India	
	Topic: Statistical Physics	
	Thesis Title: Some Studies on the Dynamics of Quantum Ising Chain	
	Advisor: Prof. Subinay Dasgupta, Dept. of Physics, University of Calcutta	
Research Experience	Junior Research Fellow 2008 – 20 S. N. Bose National Centre for Basic Science, Kolkata	10

	<b>Research Scholar</b> Department of Physics, University of Calcutta Supervisor: Prof. Subinay Dasgupta	2010 to 2018	
Teaching Experience	Assistant Professor (Stage - I) Department of Physics Raja Rammohun Roy Mahavidyalaya affiliated to The University of Burdwan, India	March, 2010 – March, 2016	
	Assistant Professor (Stage - II) Department of Physics Raja Rammohun Roy Mahavidyalaya affiliated to The University of Burdwan, India	March, 2016 – March, 2021	
	Assistant Professor (Stage - III) Department of Physics Raja Rammohun Roy Mahavidyalaya affiliated to The University of Burdwan, India	March, 2021 – present	
Project	<ul> <li>UGC Minor Research Project completed</li> <li>Title: Nonequilibrium Dynamics of Quantum Spin Models</li> <li>Funded by University Grants Commission (UGC), Govt. of India</li> <li>Tenure: December 2016 - December 2018</li> </ul>		
LIST OF PUBLICATIONS	<ol> <li>Sourin Chatterjee, Rina De, Chittaranjan Hens, Shyamal K. Dana, Tomasz Kapitaniak, Sirshendu Bhattacharyya, "Response of a three species cyclic ecosystem to a short-lived elevation of death rate", <i>Scientific Reports</i> 13, 20740 (2023).</li> </ol>		
	<ol> <li>Sanchayan Bhowal, Ramkrishna Jyoti Samanta, Arnob Ray, Sirshendu Bhattacharyya, Chittaranjan Hens, "Exploring the potential of collective learning to reduce foraging time", Chaos, Solitons &amp; Fractals 168, 113123 (2023).</li> </ol>		
	3. Protyush Nandi, <b>Sirshendu Bhattacharyya</b> and Subinay Dasgupta, "Detection of Quantum Phase Boundary at Finite Temperatures in Integrable Spin Models", <i>Physical Review Letters</i> 128, 247201 (2022).		
	4. Sahil Islam, Argha Mondal, Mauro Mobilia, <b>Sirshendu Bhattacharyya</b> and Chittaranjan Hens, "Effect of mobility in the rock-paper-scissor dynamics with high mortality", <i>Physical Review E</i> 105, 014215 (2022).		
	<ol> <li>Sirshendu Bhattacharyya and Subinay Dasgupta, "Exotic signature of dynamical quantum phase transition in the time evolution of an engineered initial state", J. Phys. A: Math. Theor. 53, 265002 (2020).</li> </ol>		
	<ol> <li>Sirshendu Bhattacharyya, Pritam Sinha, Rina De, and Chittaranjan Hens, "Mortality makes coexistence vulnerable in evolutionary game of rock-paper-scissors", <i>Physical Review E</i> 102, 012220 (2020).</li> </ol>		
	<ol> <li>Sirshendu Bhattacharyya and Subinay Dasgupta, "Dynamics in quantum Ising chain driven by inhomogeneous transverse magnetization", <i>European Physical</i> Journal B 90: 140 (2017).</li> </ol>		
	8. Sirshendu Bhattacharyya, Subinay Dasgupta and Arnab Das, "Signature of a continuous quantum phase transition in non-equilibrium energy absorption: Footprints of criticality on higher excited states", <i>Scientific Reports</i> 5, 16490 (2015).		

- 9. Sirshendu Bhattacharyya, Arnab Das, and Subinay Dasgupta, "Transverse Ising chain under periodic instantaneous quenches: Dynamical many-body freezing and emergence of slow solitary oscillations", *Physical Review B* 86, 054410 (2012).
- Swastika Chatterjee, Sirshendu Bhattacharyya, Surajit Sengupta and Tanusri Saha-Dasgupta, "Crossover of cation partitioning in olivines: A combination of ab initio and Monte Carlo study". *Physics and Chemistry of Minerals* 38, 259 (2010).