

Prof. Smarajit Karmakar

Dean and Professor (H)

Tata Institute of Fundamental Research Hyderabad

36/P Gopanpally, Hyderabad 500 046, India.

Tel: 0420203087 (O)

Email: smarajit@tifrh.res.inData of Birth: 22nd January 1980

Gender: Male,

**Academic Qualification (Undergraduate Onwards)**

Examination	University/Institution	Year of graduation
Secondary Examination	West Bengal Board of Secondary Education Marks Obtained: 88%	1996
Higher Secondary Examination	West Bengal Council of Higher Secondary Education Marks Obtained: 85%	1998
BSc	Department of Physics, Siksha Bhavana, Visva Bharati University, Santiniketan, West Bengal, India, First Rank, 83%	Aug. 1998 – July 2001
M.S	Centre for Condensed Matter Theory, Department of Physics, Indian Institute of Science. Bangalore, India ^{[L]^{SEP}} Thesis: <i>Liquid to Solid Transition for Hard Sphere Systems: Density Functional Theory</i> ^{[L]^{SEP}} Thesis Advisor: Prof. Chandan Dasgupta ^{[L]^{SEP}} First Rank, CGPA: 7.2 (8.0)	Aug. 2001 – July 2004
PhD	Centre for Condensed Matter Theory, Department of Physics, Indian Institute of Science. Bangalore, India ^{[L]^{SEP}} Thesis: <i>Numerical Studies of Slow Dynamics and Glass Transition in Model Liquids</i> ^{[L]^{SEP}} Thesis Advisor: Prof. Chandan Dasgupta	Aug. 2004 – July 2008

Work Experience (in Chronological Order)

Postdoctoral Fellow, Weizmann Institute of Science, Israel, Advisor: Prof. Itamar Procaccia	April 2009 – June 2011
Postdoctoral Fellow, University of Rome – La Sapienza, Italy, Advisor: Prof. Giorgio Parisi, Nobel Laureate Physics 2021	July 2011 – Aug 2012
Assistant Professor (E) Tata Institute of Fundamental Research Hyderabad, India	Nov 2012 – Oct 2013
Assistant Professor (F) Tata Institute of Fundamental Research Hyderabad, India	Nov 2013 – July 2018
Associate Professor (G) Tata Institute of Fundamental Research Hyderabad, India	July 2018 – Dec 2023
Professor (H) and Dean Tata Institute of Fundamental Research Hyderabad, India	Jan 2024 onwards

Professional Recognition/ Award Prize/ Certificate, Fellowship

- Top Rank in Bachelor of Science and Master of Science 2004
- Kumari L. A. Meera Memorial Award 200, the best Integrated PhD Student in Physical Sciences, IISc, Bangalore, India.
- National Eligibility Test (NET) – 2004
- Recipient of Prestigious Dean's Fellowship, Weizmann Institute of Science – 2010 -2012.
- Visiting Faculty Fellowship, Weizmann Institute of Science, Israel, July – Sept. 2018.
- Recipient of Prestigious Swarna Jayanti Fellowship for the year 2018-2019 in Physical Science by DST.
- Recipient of Alexander von Humboldt Fellowship for Experienced Researcher, Germany, 2021 - 2024.
- Recipient of JSPS Invitational Fellowship, Japan, 2025.

Under Review/Submitted Preprints:

1. Finite Disorder Critical Point in the Brittle-to-Ductile Transition of Amorphous Solids in the Presence of Particle Pinning - A Mutneja, BP Bhowmik, S Karmakar [arXiv:2501.08511, 2025 \(under review Phys. Rev. Lett.\)](#)
2. Scaling Description of the Relaxation Dynamics and Dynamical Heterogeneity of an Active Glass-forming Liquid - S Dey, S Karmakar, [arXiv:2412.17666, 2025 \(under review Phys. Rev. E\)](#)
3. Instabilities govern the low-frequency vibrational spectrum of amorphous solids - S Chakraborty, R Maharana, S Karmakar, K Ramola, [arXiv:2412.06475 \(2025\) \(under review Nature\)](#)
4. Effect of Random Pinning on the Yielding Transition of Amorphous Solid under Oscillatory Shear - R Chatterjee, M Adhikari, S Karmakar, [arXiv:2411.03874 \(2025\) \(under review Phys. Rev. Materials\)](#).
5. Role of Fragility of the Glass Formers in the Yielding Transition under Oscillatory Shear - R Chatterjee, M Adhikari, S Karmakar, [arXiv:2403.16972 \(2024\) \(under review Nature Communication 2025\)](#).
6. Influence of particle size polydispersity on dynamical heterogeneities in dense particle packings - R Biswas, A Mutneja, S Karmakar, R Bandyopadhyay, [arXiv:2401.10784 \(2024\)](#).
7. Cavitation instabilities in amorphous solids via secondary mechanical perturbations – U.A. Dattani, R. Sharma, Smarajit Karmakar, and P. Chaudhuri, [arxiv:2303.04529 \(2023\) \(under review Communications Physics\)](#).
8. Soft Matrix: Extracting Inherent Length Scales in Sheared Amorphous Solids - M. Adhikari, P. Chaudhuri, Smarajit Karmakar, V.V. Krishnan, N. Pingua, S. Sengupta, A. Sreekmari, V.V. Vasisht, [arXiv:2306.04917 \(under review PNAS Nexus 2023\)](#).
9. Yielding transition of amorphous solids in the presence of aspherical impurities - A. Mutneja, B.P. Bhowmik, Smarajit Karmakar*, [arXiv:2307.01002 \(submitted 2023\)](#).
10. Non-trivial activity dependence of static length scale and critical tests of active random first-order transition theory - K. Paul, S.K. Nandi and Smarajit Karmakar, [arXiv:2111.09829 \(2021\)](#).

Peer-reviewed Publications

11. Enhanced Long Wavelength Mermin-Wagner Fluctuations in Two-Dimensional Active Crystals and Glasses – S Dey, A Bhattacharya and Smarajit Karmakar, [Nature Communication 2025 \(in press\) also arxiv:2402.10625 \(2024\)](#).
12. Activity-Induced Annealing leads to Ductile-to-Brittle Transition in Amorphous Solids- R. Sharma, Smarajit Karmakar, [Nature Physics 21, 253-261 \(2025\)](#).
13. Encoding Fast and Fault-Tolerant Memories in Bulk and Nanoscale Amorphous Solids - M Adhikari, R Sharma, S Karmakar, [Physical Review Letters 134 \(1\), 018202 \(2025\)](#).
14. Length-scale Dependence of Stokes-Einstein Breakdown in Active Glass-forming Liquids - A. Mutneja, Smarajit Karmakar, [arXiv:2306.10229 Phys. Rev. E 111, 035409 \(2025\)](#).
15. Thermostatting of Active Hamiltonian Systems via Symplectic Algorithms - A Bhattacharya, J Horbach, S Karmakar, [Phys. Rev. E 111, 015429 \(2025\)](#).
16. Quantum fluctuations lead to glassy electron dynamics in a good metal – S.K. Ojha, S. Hazra, S. Bera, S.K. Gogoi, P. Mandal, J. Maity, A. Gloskovskii, C. Schlueter, Smarajit Karmakar, M. Jain, S. Banerjee, V. Gopalan, S. Middey, [Nature Communications 15 \(1\), 3830 \(2024\)](#).
17. Soft-Pinning: Experimental Validation of Static Correlations in Supercooled Molecular Glass-forming Liquids - R. Das, B.P. Bhowmik, A.B. Puthirath, T.N. Narayanan, Smarajit Karmakar, [Proc. Natl. Acad. Sci. Nexus \(USA\) 2 \(9\) pgad277\(2023\)](#).
18. Dynamic Heterogeneity in active glass-forming liquids in qualitatively different compared to its equilibrium behaviour - K. Paul, A. Mutneja, S.K. Nandi and Smarajit Karmakar, [Proc. Natl. Acad. Sci. \(USA\) 120 \(34\), e2217073120 \(2023\)](#).
19. Enhanced Vibrational Stability in Glass Droplets – S. Chakraborty, V.V. Krishnan, K. Ramola and Smarajit Karmakar*, [Proc. Natl. Acad. Sci. Nexus \(USA\) 2 \(9\) pgad289 \(2023\)](#).
20. A Novel Method to Probe the Pronounced Growth of Correlation Lengths in an Active Glass-forming Liquids using Elongated Probe - A Mutneja, S Karmakar, [Physical Review E Letters 108 \(2\) L022601 \(2023\)](#).
21. Dependence of the glass transition and jamming densities on spatial dimension - M. Adhikari, Smarajit Karmakar, S. Sastry, [Physical Review Letters 131, 168202 \(2023\)](#)
22. Annealing effects of multidirectional oscillatory shear in model glass formers - V.V. Krishnan, K. Ramola, and Smarajit Karmakar, [Physical Review Applied 19, 024004 \(2023\)](#).
23. Quantifying Dynamical Heterogeneity Length Scales of Interface Water across Model Membrane Phase Transition - S Malik, Smarajit Karmakar, and A Debnath, [Journal of Chemical Physics 158, 091103 \(2023\)](#).
24. Athermal quasistatic cavitation in amorphous solids: effect of random pinning - U.A. Dattani, Smarajit Karmakar, P. Chaudhuri, [arXiv:2306.05348. Journal of Chemical Physics 159 \(20\) 2023](#).
25. Relaxation time scales of interfacial water upon fluid to ripple to gel phase transitions of bilayers – S Malik, Smarajit Karmakar and A Debnath, [Journal of Chemical Physics 158, 114503 \(2023\)](#).
26. Giant electroviscous effects in a ferroelectric nematic liquid crystal - MP Kumar, J Karcz, P Kula, S Karmakar, S Dhara, [Physical Review Applied 19 \(4\) 044082 \(2023\)](#).
27. Kinetic Fragility Directly Correlates with the Many-body Static Amorphous Order in Glass-Forming Liquids - I Tah, Smarajit Karmakar, [Physical Review Materials 6 \(3\) 035601 \(2022\)](#).
28. Universal mechanical instabilities in the energy landscape of amorphous solids: Evidence from athermal quasistatic expansion - UA Dattani, S Karmakar, P Chaudhuri [Physical Review E 106 \(5\), 055004 \(2022\)](#).
29. Thermodynamics and its correlation with dynamics in a mean-field model and pinned systems: A comparative study using two different methods of entropy calculation - U.k. Nandi, P. Patel, M. Moid, M.K. Nandi, S. Sengupta, Smarajit Karmakar, P.K. Maiti, C. Dasgupta, S.M. Bhattacharyya, [The Journal of Chemical Physics, 156, 014503 \(2022\)](#).
30. Universal non-Debye low-frequency vibrations in sheared amorphous solids - Vishu V Krishnan, Kabir Ramola, and Smarajit Karmakar, [Soft Matter 18, 3395 \(2022\)](#).
31. Enhanced Phonon Peak in Four-point Dynamic Susceptibility in the Supercooled active Glass-forming Liquids - S. Dey. A. Mutneja, and Smarajit Karmakar, [Soft Matter 18, 7309 \(2022\)](#).
32. Dynamics of Rod like Particles in Supercooled Liquids--Probing Dynamic Heterogeneity and Amorphous Order – Anoop Mutneja and Smarajit Karmakar, [Physical Review Applied 16 \(3\), 034022 \(2021\)](#).
33. Translational dynamics of rod-like probe in supercooled liquids: an experimentally realisable method to study Stokes-Einstein breakdown, dynamic heterogeneity, and amorphous order, Anoop Mutneja and Smarajit Karmakar, [Soft Matter 17, 5738 \(2021\)](#).
34. Spatial Dimensionality Dependence of Heterogeneity, Breakdown of the Stokes–Einstein Relation, and Fragility of a Model Glass-Forming Liquid - M. Adhikari, Smarajit Karmakar, S. Sastry, [The Journal of Physical Chemistry B 125, 10232 \(2021\)](#).
35. Understanding Slow and Heterogeneous Dynamics in Model Supercooled Glass-forming Liquids – I Tah, A Mutneja, and Smarajit Karmakar, [ACS Omega 6\(11\), 7229 \(2021\) \(Invited Review Article\)](#).
36. Cavity formation in deformed amorphous solids on the nanoscale – K Paul, R Dasgupta, J Horbach and Smarajit Karmakar*, [Physical Review Research 2, 042012 \(2020\)](#).
37. Time Scales of Fickian Diffusion and Lifetime of Dynamic Heterogeneity – R Das, C. Dasgupta and Smarajit Karmakar*, [Frontiers in Physics 8, 210 \(2020\)](#).

38. Signature of Dynamical heterogeneity in Spatial correlations of particle displacement and its Temporal evolution in Supercooled liquids, I. Tah and Smarajit Karmakar*, [Physical Review Research, 2, 022067 \(2020\)](#).
39. Cusp singularities in Hessian element distributions of amorphous media - VV Krishnan, Smarajit Karmakar, K Ramola, [Physical Review Research 2, 042025 \(2020\)](#).
40. Dynamic coupling of hydration layer to a fluid phospholipid membrane: intermittency and multiple time-scale relaxations - A Srivastava, S Malik, Smarajit Karmakar, and A Debnath, [Physical Chemistry Chemical Physics, 22, 21158 \(2020\)](#).
41. Effect of pinning on the Yielding Transition of Amorphous Solids – BP. Bhowmik, P. Chaudhuri and Smarajit Karmakar*, [Physical Review Letters 123, 185501 \(2019\)](#).
42. Particle pinning suppresses spinodal criticality in the shear banding instability - BP. Bhowmik, Smarajit Karmakar, I Procaccia, and C Rainone - [Physical Review E 100, 052110 \(2019\)](#).
43. Quantification of patio-temporal scales of dynamical heterogeneity of water near lipid membranes above supercooling - A Srivastava, Smarajit Karmakar, and A Debnath. [Soft Matter 15, 9805 \(2019\)](#).
44. Role of α and β Relaxation in Collapsing Dynamics of Polymer Chain in Supercooled Glass-forming Liquids – M. Mukherjee, J. Mondal and Smarajit Karmakar*, [J. Chem. Phys. 150, 114503 \(2019\)](#).
45. Non-Gaussianity of van Hove Function and Dynamic Heterogeneity Length Scale – BP Bhowmik, I Tah and Smarajit Karmakar*, [Phys. Rev. E 98, 022122 \(2018\)](#).
46. Glass Transition in Supercooled Liquids with Medium Range Crystalline Order – I Tah, S Sengupta, S Sastry, C Dasgupta and Smarajit Karmakar*, [Phys. Rev. Lett. 121, 085703 \(2018\)](#).
47. Possible Universal Relation Between Short time β Relaxation and Long time α Relaxation in Glass-forming Liquids. – R. Das, I. Tah and Smarajit Karmakar*, [J. Chem. Phys. 149, 024501 \(2018\)](#).
48. Plastic deformation of a permanently bonded network: Stress relaxation by pleats - S. Ganguly, D. Das, J. Horbach, P. Sollich, Smarajit Karmakar, S. Sengupta, [J. Chem. Phys. 149, 184503 \(2018\)](#).
49. Do Thermodynamically Stable rigid solids exist? – P. Nath, S. Ganguly, J. Horbach, P. Sollich, Smarajit Karmakar and S. Sengupta, [Proc. Nat'l. Acad. Sci. 115, E4322 \(2018\)](#).
50. Block Analysis for the Calculation of Dynamic and Static Length Scales in Glass-Forming Liquids – S Chakrabarty, I Tah, Smarajit Karmakar* and C Dasgupta [Phys. Rev. Lett. 119 \(20\) 205502 \(2017\)](#).
51. Equilibrium and Dynamic Pleating of a Crystalline bonded Network – S Ganguly, P Nath, J Horbach, P Sollich, Smarajit Karmakar*, and S Sengupta, [Journal of Chem. Phys. 146 \(12\), 124501 \(2017\)](#).
52. Pinning Susceptibility: A Novel Method to Study Growth of Amorphous Order in Glass-forming Liquids – R Das, S Chakrabarty, and Smarajit Karmakar*, [Soft Matter 13, 6929-6937 \(2017\)](#).
53. An Overview on Short and Long Time Relaxations in Glass-forming Supercooled Liquids – Smarajit Karmakar*, [Journal of Physics: Conference Series 759 \(1\), 012008 \(2016\)](#).
54. Understanding the Dynamics of supercooled liquids with Random Pinning within the Random First Order Transition Theory – S Chakrabarty, R Das, Smarajit Karmakar*, C Dasgupta, [J. Chem. Phys. 145, 034507 \(2016\)](#).
55. Understanding Stokes-Einstein in Supercooled Liquids using Random Pinning – BP Bhowmik, R Das and Smarajit Karmakar*, [J. Stat. Mech. : Theory and Experiments 074003 \(2016\)](#).
56. Excess Vibrational Density of States and the Brittle to Ductile Transition in Crystalline and Amorphous Solids – JS Babu, C Mondal, S Sengupta, Smarajit Karmakar*, [Soft Matter 12\(4\), 1210 \(2016\)](#).
57. Short-time β -relaxation in glass-forming liquids is cooperative in nature – Smarajit Karmakar*, C Dasgupta, S Sastry, [Phys. Rev. Lett. 116, 085701 \(2016\)](#).
58. The Static lengthscale characterizing the glass transition at lower temperatures- R Gutierrez, Smarajit Karmakar, YG. Pollak and I Procaccia, [Europhys. Lett. 111\(5\), 56009 \(2016\)](#).
59. Length scales in glass forming liquids and related systems" by Smarajit Karmakar, C Dasgupta, S Sastry, [Report on Progress in Physics 79, 016601 \(2015\)](#).
60. Vanishing of configurational entropy may not imply an ideal glass transition in randomly pinned liquids- S Chakrabarty, Smarajit Karmakar*, C Dasgupta, [Proc. Natl. Acad. Sci. \(USA\), 201512745 \(2015\)](#).
61. Dynamics of glass forming liquids with randomly pinned particles - S Chakrabarty, Smarajit Karmakar*, C Dasgupta, [Scientific reports 5 \(2015\)](#).
62. Glass-like slow dynamics in a colloidal solid with multiple ground states - C Mondal, Smarajit Karmakar, S Sengupta, [The Journal of Physical Chemistry B 119 \(34\), 10902–10910 \(2015\)](#).
63. Distribution of diffusion coefficients and connection to Stokes-Einstein Violation in Super cooled liquids – S Sengupta and Smarajit Karmakar*, [The Journal of Chemical Physics 140 \(22\), 224505 \(2014\)](#).
64. Growing Length Scales at the Glass Transition - Smarajit Karmakar, C Dasgupta and S Sastry, [Annual Review of Condensed Matter Physics 5, 1 \(2013\)](#).
65. Comparison of Static Length Scales Characterizing the Glass Transition - G Biroli, Smarajit Karmakar*, and I Procaccia, [Phys. Rev. Lett. 111, 165701 \(2013\)](#).
66. Breakdown of the Stokes-Einstein relation in two, three and four dimensions – S Sengupta, Smarajit Karmakar, C Dastupta and S Sastry, [J. Chem. Phys. 138, 12A548 \(2013\)](#).
67. Random Pinning Glass Model – Smarajit Karmakar and G Parisi, [Proc. Nat. Acad. Sci. \(USA\) 110, 2752 \(2013\)](#).
68. Finite Size Scaling for the Glass Transition: The Role of a Static Length Scale - Smarajit Karmakar* and I Procaccia, [Physical Review E 86, 061502 \(2012\)](#).
69. The nature of the β -peak in the loss modulus of amorphous solids – Y Cohen, Smarajit Karmakar, I Procaccia, and K Samwer, [EPL \(Europhysics Letters\) 100, 36003 \(2012\)](#).
70. Relaxation Mechanisms in Glassy Dynamics: the Arrhenius and Fragile Regimes - HGE. Hentschel, Smarajit Karmakar, I Procaccia and J Zylberg, [Phys. Rev. E 85, 061501 \(2012\)](#).
71. Adam-Gibbs relation for glass-forming liquids in 2, 3 and 4 dimensions – S Sengupta, Smarajit Karmakar, C Dasgupta and S Sastry, [Physical Review Letters 109, 095705 \(2012\)](#).
72. Universality of Plastic Instability in Strained Amorphous Solids – R Dasgupta, Smarajit Karmakar, I Procaccia, [Physical Review Letters 108, 075701 \(2012\)](#).
73. An Athermal Brittle to Ductile Transition in Amorphous Solids- O Dauchot, Smarajit Karmakar, I Procaccia, and J Zylberg – [Physical Review E 84, 046105 \(2011\)](#).
74. Direct Estimate of the Static Length-Scale Accompanying the Glass Transition - Smarajit Karmakar, E Lerner, and I Procaccia, [Physica A, 391, 1001 \(2012\)](#).
75. Do Athermal Amorphous Solids Exist? - H.G.E. Hentschel, Smarajit Karmakar, E Lerner, I Procaccia – [Physical Review E 83, 061101 \(2011\)](#).
76. Effect of the Inter-particle Potential on the Yield Stress of Amorphous Solid – Smarajit Karmakar, E Lerner, I Procaccia, and J Zylberg – [Physical Review E 83, 046106 \(2011\)](#).
77. Statistical Physics of the Yielding Transition in Amorphous Solids – Smarajit Karmakar, E Lerner and I Procaccia - [Physical Review E Rapid Comm. 82, 055103\(R\) \(2010\)](#).
78. Statistical Physics of Elasto-Plastic Steady States in Amorphous Solids: Finite Temperatures and Strain Rates - Smarajit Karmakar, E Lerner, I Procaccia, J Zylberg – [Physical Review E. 82, 031301 \(2010\)](#).
79. Time Scales in the Theory of Elasto-Plasticity of Amorphous Solids - L Boue, P Harrowell, Smarajit Karmakar, E Lerner, I Procaccia, I Regev, J Zylberg - [arXiv:0911.4646](#).
80. Athermal Nonlinear Elastic Constants of Amorphous Solids - Smarajit Karmakar, E Lerner, and I Procaccia, [Physical Review E 82, 02615 \(2010\)](#).
81. Plasticity-Induced Anisotropy in Amorphous Solids: The Bauschinger Effect – Smarajit Karmakar, E Lerner, I Procaccia, [Physical Review E. 82, 02614 \(2010\)](#).
82. Comment on “Scaling Analysis of Dynamic Liquid” by Stein and Andersen – Smarajit Karmakar, C Dasgupta, S Sastry, [Physical Review Letters 105, 019801 \(2010\)](#).
83. Analysis of dynamic heterogeneity in a glass former from the spatial correlations of mobility - Smarajit Karmakar, C Dasgupta, S Sastry, [Physical Review Letters 105, 015701 \(2010\)](#).

84. Predicting plastic flow events in athermal shear-strained amorphous solids – Smarajit Karmakar, A Lemaitre, E Lerner and I Procaccia, [Physical Review Letters](#), **104**, 215502 (2010).
85. Size of Plastic Events in Strained Amorphous Solids at Finite Temperatures – HGE. Hentschel, Smarajit Karmakar, E Lerner, I Procaccia, [Physical Review Letters](#), **104**, 025501 (2010).
86. Growing length and time scales in glass forming liquids - Smarajit Karmakar, C Dasgupta, and S Sastry, [Proc. Nat. Acad. Sci. \(USA\)](#) **106**, 3675 (2009).
87. Signatures of Dynamical Heterogeneity in the Structure of Glassy Free-energy Minima – P Chaudhuri, Smarajit Karmakar and C Dasgupta, [Physical Review Letters](#) **100**, 125701 (2008).
88. Equilibrium Glassy Phase in a Polydisperse Hard-Sphere System - P Chaudhuri, Smaraji Karmakar, C Dasgupta, HR Krishnamurthy, and AK Sood - [Physical Review Letters](#) **95**, 248301 (2005).

Outreach Activities

I wrote two popular invited articles on the work of Nobel Prize winning work of Prof. Giorgio Parisi.

89. Physics of Disordered Systems - Smarajit Karmakar, [Resonance](#) **27** (1), 19-38 (2022).
90. Interplay of Disorder and Fluctuations in Physical Systems - Celebrating the Science of Giorgio Parisi, Physics Nobel laureate 2021, - S.K. Nandi and Smarajit Karmakar, [Physics News](#) **4** (2022).

Students Supervised

1. Indrajit Tah (Aug. 2014 – 2019), Graduate Student (Graduated 2019 and Assistant Professor in CGCRI Kolkata)
2. Rajsekhar Das (Aug. 2014 – 2019), Graduate Student (Graduated 2019 and joined Prof. D. Thirumalai's group in University of Texas for post doctoral research.)
3. Bhanu Prasad Bhowmik (Aug. 2014 – 2019), Graduate Student (Graduated 2019 and joined Prof. I. Procaccia's group in Weizmann Institute of Science.)
4. Mrinmoy Mukherjee (Aug. 2014 – 2020), Graduate Student jointly with Dr. J. Mondal. (graduated 2020 and joined Herbert Levine's group in Northeastern University)
5. Kallol Paul (Jan. 2015 – 2022), Graduate Student (Postdoctoral Fellow in Prof. Juergen Horbach's group 2022 onwards).
6. Vishnu Krishnan (August 2017 - 2022), Graduate Student (Graduated 2022, Postdoctoral fellow in Prof. Hajime Tanaka's group, Tokyo, Japan)
7. Anoop Mutneja (April 2018 – July 2023) Graduate Student (Graduates 2023 and joined Prof. Kenneth Schweizer's group in University of Illinois at Urbana Champagne, USA).
8. Subhodeep Dey (April 2020 - present) Graduate Student (thesis submitted, Prof. Kunimasa Miyazaki's group in Nagoya University Japan).
9. Rishabh Sharma (April 2021 – June 2025) Graduate Student (will join NYU under Simon's Independent Postdoctoral Fellowship).
10. Rashmi Priya (April 2021 - present) (going to submit by Sep 2025) Graduate Student.
11. Roni Chatterjee (April 2021 - present) (going to submit by Sep 2025) Graduate Student.
12. Surajit Chakraborty (April 2021 – present) Graduate Student jointly with Prof. Kabir Ramola.
13. Antik Bhattacharya (April 2022 - present) Graduate Student.
14. Padmanabha Bose (Jan 2023 - present) Graduate Student.
15. Anirban Datta (July 2024 – present) Graduate Student.
16. Santu Nath (July 2024 – present) Graduate Student.
17. Arnab Mondal (Jan 2025 – present) Graduate Student.

Postdoctoral Fellow Supervised

1. Dr. Jeetu S. Babu (Aug. 2014 – Aug. 2015) (presently an Asst. Professor in Amrita University), Postdoctoral Student
2. Dr. Ronald Benjamin (Aug. 2016 – Feb. 2018), Postdoctoral Student jointly with Prof. Surajit Sengupta.
3. Dr. Debarati Sarkar (May 2021 – July 2023) Postdoctoral Fellow
4. Dr. Monoj Adhikari (December 2021 – July 2023) Postdoctoral Fellow
5. Dr. Vandana AS (April 2021 – April 2024) Postdoctoral Fellow