

C L Sriram

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Research interests

Condensed matter theory: I am interested in studying closed quantum systems with disorder. I am specifically curious about the phenomenon of Many-Body Localization (MBL).

Statistical physics: I like non-equilibrium statistical phenomenon such as exclusion processes, random walks and percolation theory.

Education

2018 – 2023 **Cochin University of Science and Technology** – Kochi, Kerala.
Integrated MSc Physics; *GPA: 9.04/10.0.*

Research and Projects

- August 2023 – Present **Junior Research Fellow, Tata Institute of Fundamental Research, Mumbai.**
Transport properties of disordered spin systems: Study of 1D spin chains with disorder to probe artefacts of Many Body Localization (MBL).
Principal Investigator: Prof. Shamik Gupta, TIFR, Mumbai.
- January 2023 – May 2023 **Master's Thesis, Tata Institute of Fundamental Research, Mumbai.**
A study of asymmetric and symmetric simple exclusion processes in the presence of stochastic resetting: Analytic and numerical results for the stationary state distribution of the ASEP and SSEP in the presence of stochastic resetting.
Thesis Advisor: Prof. Shamik Gupta, TIFR, Mumbai.
- June 2022 **Summer Project, Institute of Mathematical Sciences, Chennai.**
Analysis of immune cell population in neonatal and adult blood: Study of the cross-correlation structure of immune cell population and an attempt to model it using an M-Factor Model.
Project Guide: Prof. Sitabhra Sinha, IMSc, Chennai.

January 2021 -
May 2021

Semester Mini-Project, Cochin University of Science and Technology, Kochi.

An attempt to study two-dimensional continuum percolation as a one-dimensional time dependent model: A study of the two dimensional boolean model and an effort to view it as a discretized model in the hope of simplifying simulation and better understanding critical phenomenon.

Guide: Dr. V Sasidevan, Department of Physics, CUSAT, Kochi.

References

Prof. Shamik Gupta, shamik.gupta@theory.tifr.res.in

Dr. V. Sasidevan, sasidevan@cusat.ac.in

Prof. Titus K. Mathew, titus@cusat.ac.in

Technical skills

Programming languages

Proficient in: C++, Python

Familiar with: R, GNU Octave

Software

L^AT_EX

Personal

Nationality

Indian

Languages

English, Hindi, Malayalam, Tamil