



Module PMRF-ISSS0010/2024

Statistical Understanding of equilibrium systems

Name of the PMRF student

Souravi Mukherjee

Required background of the students taught

Basic understanding of calculus and probability is essential.
Well suited for undergraduates and postgraduates in physical sciences or engineering.

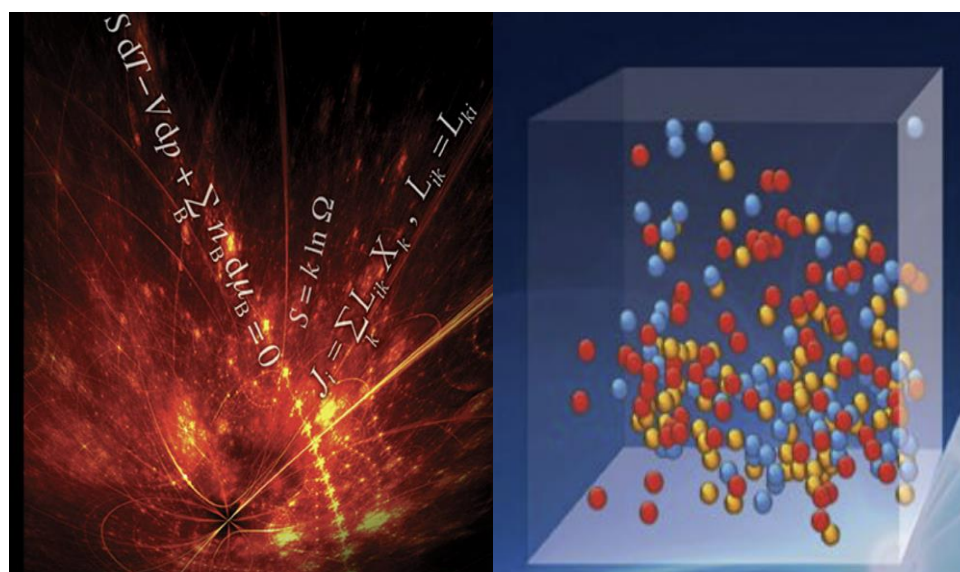
Details of the content of the module

The course will include –

- Concept building
- Developing Problem-solving skills
- Doubt-clearing discussions

The main topics to be covered are:

- Introduction to temperature and entropy, with reference to systems in equilibrium.
- Discussions on Thermodynamic state functions.
- Introduction to Probabilistic distributions. How moments of distributions can be important.
- Understanding Random walk.
- The link between thermodynamic variables and statistical descriptions.
- Ensemble description of systems in equilibrium.
- Statistical physics of Identical particles
- Introduction to Quantum statistics with reference to Bosons and Fermions.



Schedule of the module

Start Date: 19th February 2024

End Date: 19th April 2024

Schedule: Monday (6pm -7:30pm)
Friday (5pm – 6:30pm)

Total hours: 27 hours

Meeting link : Will be shared later

[Link](#)

Contact email ID: iss.s.forum@gmail.com

Registration link:

<https://forms.gle/3cZ3VDzV1TJ2bjxn9>