

Module PMRF-ISSS142/II/2024

Computational physics with Python

Name of the PMRF student

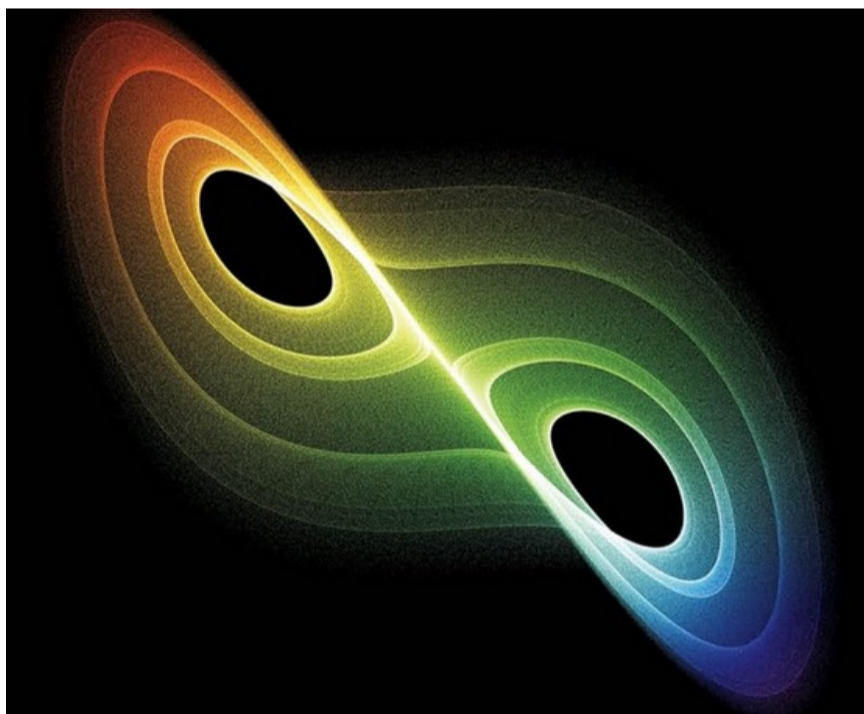
Alankar Dutta

Required background of the students taught

Undergrad physics, basics of Python,
plotting with Python

Details of the content of the module

- Introduction to computational physics
- Computer architecture overview, tools of computational physics
- Machine representation, precision and errors
- Roots of equations
- Extrapolation
- Quadrature and numerical integration
- Random numbers and Monte Carlo methods
- Fourier transforms
- Ordinary differential equations



Schedule of the module

Every Thursday and Saturday 9:00 to 11:00 (Indian Standard Time)

First class on 29th August 2024

Course duration: 3 weeks (total 12 hours)

Meeting link : Will be shared later

[Link](#)

Contact email ID: alankardutta@iisc.ac.in

Registration link:

<https://forms.gle/FPJkDMVv3a4MYoFA9>