

Online Workshop on High Performance Computing for Astronomy and Astrophysics

September 20-23, 2021

Organized by the SKA-India Consortium and IIT Kharagpur
Under the aegis of National Supercomputing Mission



About the Workshop:

In recent times, different research areas in Astronomy & Astrophysics have started to rely on high performance computing (HPC). The workshop aims to cover different aspects relevant for using HPC to solve problems in such areas. Basics of HPC programming framework will be complemented by timely and relevant topics in Astronomy & Astrophysics where HPC resources are indispensable.

Topics:

- Introduction to HPC
- OpenMP & MPI with demonstration
- CUDA and GPU optimized codes
- Domain decomposition methods using MPI
- Fluids and magnetohydrodynamics
- Cosmological simulations
- Radiative transfer
- Numerical relativity
- Neutral hydrogen surveys
- Pulsar surveys
- Radio continuum imaging
- Radio transients

Speakers:

Abhirup Datta, IIT Indore
Ashish Kuvelkar, CDAC
Bharat Kumar, NVIDIA
Bhaswati Bhattacharyya, NCRA-TIFR Pune
Girish Kulkarni, TIFR Mumbai
Neeraj Gupta, IUCAA Pune

Workshop Links:

[Online Registration Form](#)

Webpage:

www.ccds.iitkgp.ac.in/hpcastro.html

Contact email: ccdsoffi@ccds.iitkgp.ac.in

Important Dates:

Last date for registration: *September 15, 2021, 5:00PM*
(Registration may close earlier, if capacity is reached. Early registration is recommended.)

Notification and sharing of link: *September 17, 2021*

Who should attend:

Scientists, Faculty Members, Postdoctoral Fellows,
Doctoral Students, Postgraduate Students

Organizing Committee:

Ashish Kuvelkar, CDAC
Dipanjan Mukherjee, IUCAA, Pune
Narendra Nath Patra, RRI, Bengaluru
Pabitra Mitra, IIT Kharagpur
Somnath Roy, IIT Kharagpur
Tirthankar Roy Choudhury, NCRA-TIFR, Pune

Nishikanta Khandai, NISER Odisha
Pralay Mitra, IIT Kharagpur
Prateek Sharma, IISc Bengaluru
Prayush Kumar, ICTS-TIFR Bengaluru
Preeti Malakar, IIT Kanpur
Shriharsh Tendulkar, TIFR Mumbai
Somnath Roy, IIT Kharagpur

