



HSTRHX'2)

14-16TH MAY, 2021



### Greetings

We are abundantly delighted to present before you, the third edition of AstraX, the one-of-its-kind inter-college Astro-Meet of Indian Institute of Technology Mandi. Bringing together space science and technology, AstraX is a hub for astronomy enthusiasts hosting a variety of amazing events and proficient talks by prominent speakers in the field.

It will be a pleasure for us to have you here with us in AstraX. Therefore, we gladly invite you to be a part of this marvelous fest.

Regards Team AstraX



### Convenors'Address

Greetings from IIT Mandi

It fills me up with immense delight to present before you AstraX 2021 the third edition of the annual astro-meet of IIT Mandi. Marked as the one and only of its kind in the north, AstraX brings together students and professors with an inclination towards astronomy. Therefore, we gladly invite you to be a part of this Astro-technical fiesta.

Decorated by the genius talks of some of the well-known personalities in the field of astronomy, AstraX brings to you a plethora of exceptional cosmic talent and expertise all wrapped up in this three-day long festival. AstraX aims to provide and promote knowledge in various aspects of astronomy and astrophysics for those who are passionate about the world beyond the sky and appreciate its visible as well as latent beauty.

We look forward to having you here with us in AstraX.

Convenors AstraX'21



## Highlights

With a vast range of participants from various colleges of North India including IITs IISERs, AstraX is a fest out of the ordinary. AstraX is a central attraction for students and professors with an inclination towards astronomy and astrophysics adding to the list of copacetic events, acing talks of the prodigious people in the field of computational and theoretical astronomy and lauded workshops, this year we have a lot more in store for you.





#### Dr.Somak Raychaudhury

He is an Indian astrophysicist. He is the Director of the Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune. He is a member of the International Astronomical Union, a Fellow of the Royal Astronomical Society, and a Fellow of the European Astronomical Society. He has expertise in the field of astrophysics, cosmology, etc.





#### Dr. Laura A. Hayes

She is currently a researcher at NASA Goddard Space Flight Center (GSFC). Her research focuses on the multi-wavelength study of solar flares with a particular focus on oscillatory signatures observed in radio and hard X-ray observations. She was also researcher at NASA Frontier Development Lab.



#### <u>Dr. Bala Iyer</u>

He is a visiting Professor at ICTS-TIFR, Bangalore. His principal research interest over the last two decades relate to the computation of high accuracy gravitational waveforms for inspiralling compact binaries (ICB) of neutron stars and black holes using multipolar post Minkowskian methods. He has been involved in leading the activities of the Indian Initiative in Gravitational-wave Observations (IndIGO) Consortium.





#### <u>Er. Dorje Angchuk</u>

He is an engineer at the Indian Astronomical Observatory at Hanle, Leh and works at the Indian Institute of Astrophysics, Bangalore. He is among the key staff members involved in the commissioning and operation of the telescopes at the IAO. Apart from his professional contribution, he is an outstanding astrophotographer. His pictures have been featured in leading publications such as The New Yorker magazine.





#### 1. Enigma

Discover the latent beauty of the interstellar with this innovative hackathon based on processing and analysis of astronomical data.



#### 2. Infinitesimal Abyss

Ever been inspired by papers on astronomy? Take this opportunity to choose any pre-published paper and present it to fullest.



#### 3. The Gordian Knot

Showcase your genius in the field of astronomy and astrophysics among the brightest of minds through this astronomy quiz.





#### 4. Mission X

Put your technical excellence to work and bring out the genius in you through this exceptional case study event.



#### 5. Estrella

Fuel up your passion, pen down your starry thoughts into words and show them to the world through this blog writing event.



#### 6. Shooting Star

Present the spellbound beauty of the cosmos, to the world, through your lens in this astrophotography event.





#### 7. War of the Worlds

Are you of the opinion that Captain Marvel can destroy Superman in a fight? Enter into a debate with people who think otherwise and watch your friends participate in similar matchups across different universes in this fun event.









# RAD@home Astronomy Collaboratory

#### #RADatHomeIndia

The first Indian citizen-science research platform in astronomy, will be organizing One Day RAD@home Astronomy Workshop (ODRAW) for citizen Science Research using GMRT at IIT, Mandi (#RADatIITmandi)

Live Talks on Fantastic Bursts and How to Find Them using Artificial Intelligence (Dr. Devansh Agrawal), UV-Optical-IR-radio RGB-contour images of thermal and non-thermal sky (Dr. Ananda Hota), Observing supermassive black holes in Quasars and radio galaxies (Dr. Chiranjib Konar), Galaxy black hole coevolution study using RAD@home and GMRT (Dr. Ananda Hota).



Practical Demonstration and nationwide Inter-University Live discussion on RGB images made by participants (Dr. Ananda Hota & RAD@home e-astronomers).

Selected participants will get the opportunity to be a part of #DilSeDiscovery later in Facebook and Google Classroom by RAD@home e-astronomers & Dr. Ananda Hota, Director and Principal Investigator of the Collaboratory

https://radathomeindia.org

Be a part of the workshop in order to play and learn with radio astronomy and even possibly discover deep space objects!



# Why should you be a part of AstraX?

AstraX hosts a variety of copacetic events ranging from an astroquiz, a hackathon to an astrophotography contest, providing you a platform to showcase your genius in the field that suits you best.

Prodigious talks by some of the prominent personalities in the field of theoretical and computational feature sure to leave you awestruck with a gust of having experienced something new.

AstraX organizes amazing workshops on various aspects of astronomy to detailed presentations and interactive sessions.

A vast variety of participants largely from other IITs and IISERs serves as an opportunity to compete among some of the brightest young minds of the country.