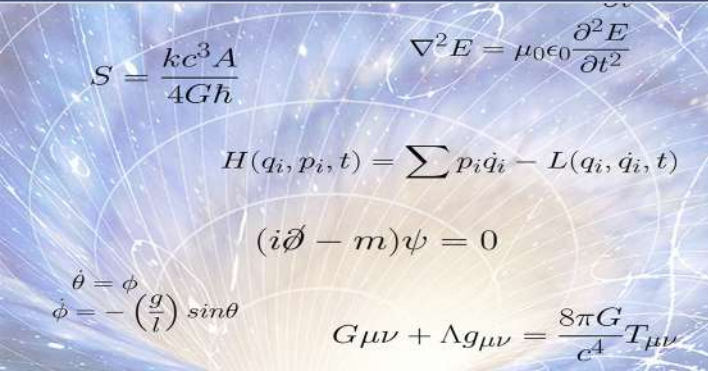




# Summer School in Theoretical Physics

May 29 – June 09, 2023 | Hybrid | Sponsored by IUCAA, Pune



## Who Can Attend:

3<sup>rd</sup> & 4<sup>th</sup> year BSc, MSc, and PhD Physics students

## Maximum Participants:

30 (Offline) + 10 (Online)

## No Registration Fee

To Register Scan the  
QR Code or  
Click On the Link

[bit.ly/SSTP-2023](https://bit.ly/SSTP-2023)



Theoretical physics is a fundamental and fascinating branch of physics that leads to the development of mathematical formalism and computational protocols to understand the underlying principles of natural world. This can entail developing self-logical theories to explain events outside of the scope of present experiments or offering models for comprehending empirical results.

Department of Physics and Electronics, St Xavier's College (Autonomous), Ahmedabad is organizing the Summer School in Theoretical Physics during May 29 - June 09 in association with Kshama Ahmedabad Academy of Sciences (KAAS), Ahmedabad. The School is sponsored by Inter University Center for Astronomy and Astrophysics (IUCAA), Pune. The School is designed to provide a comprehensive introduction to the central concepts and theories in theoretical physics. Participants will delve into topics such as quantum mechanics, general relativity, field theory, complex systems to gain a deeper understanding of the mathematical and conceptual frameworks that shape our understanding of the universe. If you are a curious mind wondering about the mysteries of physics, this summer school offers a unique opportunity to expand your knowledge and engage with the leading experts in the field.

<https://sites.google.com/view/sstp2023/>

**Organizers:** Department of Physics & Electronics, St. Xavier's College (Autonomous), Ahmedabad (SXCA) & Kshama Ahmedabad Academy of Sciences (KAAS), Ahmedabad

**Chief Patron:** Fr (Dr) Lancelot D'cruz S.J., Principal, SXCA

**Patron:** Dr Rajesh Iyer, Head, Dept of Physics & Electronics (SXCA)

**Advisor:** Professor Ranjeev Misra, IUCAA, Pune

**Coordinator:** Dr Gurudatt Gaur, Assistant Professor, Dept of Physics & Electronics (SXCA)



# INVITED SPEAKERS



**DR ANAND SENGUPTA**  
(IIT GANDHINAGAR)



**DR SACHIN PANDEY**  
(CHANDIGARH UNIVERSITY)



**DR RAHUL KASHYAP**  
(PENNSYLVANIA STATE UNIVERSITY)



**PROF. RAJARAMAN GANESH**  
(IPR, GANDHINAGAR)



**PROF ABHIJIT BHATTACHARYA**  
(CALCUTTA UNIVERSITY, CALCUTTA)



**PROF PATRICK DASGUPTA**  
(DELHI UNIVERSITY, DELHI)



**DR AMIT REZA**  
(NIKHEF, NETHERLANDS)



**DR PRASANNA VENKATESH**  
(IIT GANDHINAGAR)

## TOPICS COVERED:



- Mathematical and Statistical Methods in Physics with Python
- Machine Learning in Physics and Astronomy
- Theoretical Condensed Matter Physics
- Einstein's Relativity
- Astronomy and Astrophysics
- Quantum Computing & Quantum Technologies
- Nonlinear Dynamics
- Classical and Quantum Field Theory