

Mr. S. Atul Bhat

Asst. Professor,
Dept. of Physics



Contact: atulbhat@ppc.ac.in

Working at Poornaprajna College Since: 2019

Currently held positions/offices

- Co-ordinator, Poornaprajna Amateur Astronomers' Club
- Co-ordinator, Green Campus Initiative & Audit Committee
- Website Administrator, Udupi Shri Admar Mutt Education Council

Educational Qualification

- Master of Science - Physics, Jain University (2015)

Work experience

- Assistant Professor, Dept. of Physics at Poornaprajna College, Udupi (2019 - present)
- Assistant Professor, Dept. of Physics at Govinda Dasa College, Surathkal (2016 - 2019)

Awards/Achievements

- Gold Medal – M.Sc Physics – 1st Rank, 5th Annual Convocation, Jain University (2015)

Areas of interest (Academic)

Astrophysics, Cosmology, Computational Physics, Relativity & Quantum Mechanics, Digital Electronics

Expertise

Astronomy & Astrophysics, Programming and Computations

Academic Activities

Journal articles

1. Swati Routh, Snehanshu Saha, Atul Bhat, M.N. Sundar, *An analytical model of prominence dynamics*, Advances in Space Research, Vol 61-2, 2018, p715-719, ISSN 0273-1177

Books & Chapters

- Chapter on *Geophysics and Biophysics*, for the textbook for 1st Semester Open-Elective Physics – Mangalore University, published by Association of Physics Teachers of Mangalore University. 2019
- Suvarnalatha Shenoy, Atul Bhat, *Basics of Communication & Astronomy*, Published by Association of Physics Teachers of Mangalore University , ISBN: 9798201635299 (Digital). 2021

Paper presented in conferences/seminars

- S. A. Bhat , “Investigation on Electric Field due to the charge on Semi-classical model of the Electron”, 102nd Indian Science Congress, Mumbai, January 2015
- Routh Swati, Atul Bhat, Sundar M N, “Study of prominence dynamics”, Coupling and Dynamics of Solar Atmosphere conference at IUCAA, Pune, November, 2014
- Atul Bhat*, Dr. A.P. Bhat, Meghana J.V, Shubhashri Shenoy, Chyawan Hegde, ‘Taking Astronomy to People – E-Initiatives by PAAC’, at an online workshop, ‘Astronomy outreach during the Pandemic’, organized by Indian Institute of Astrophysics, 2-4 August 2021.
- Shahjahan Iqbal , Chaitrika B.M* , Atul Bhat, Ramu L., ‘Computational Study On The Temperature Dependence Of NQR Frequency’, at Condensed Matter Physics and Applications 2022 – Manipal Institute of Technology, 2-3rd December 2022.

Short-term courses attended

- Refresher Course on ‘Experimental Physics’ organized by Indian Academy of Sciences, at Mody University, Rajasthan, December 2018.
- International Online Certificate Program on Introduction to Rocket and Satellite Engineering, 12–17 April, 2020.

- *Getting Started in Sky Watching": A Two Day Webinar Crash Course on Amateur Astronomy*, organized by Big Bang Astronomy Club of Shri. O. V. Sheth Regional Community Science Center, Rajkot and Department of Physics, Saurashtra University, Rajkot, 25th – 26th May, 2020.
- 5-day FDP on *Recent Advances in Photonics Technology*, Vidyavardhaka College of Engineering, Belagavi, 7th to 11th September 2020.
- Online FDP on Cybersecurity Essentials by ICT Academy, 23-27 Aug, 2021
- Online Olympiad Exposure Camp in Physics and Astronomy 2022, HBCSE – TIFR, 17-21 January 2021
- Online Two-Week Refresher Course in Physics organized by Teaching Learning Center, Ramanujan College, University of Delhi in association with K.L.E. Society S.K. Arts College and H.S.K. Science Institute, Hubballi, 10th to 24th April 2022.
- Online One-Week Refresher Course in Digital Security in Online Classroom organized by Teaching Learning Center, Ramanujan College, University of Delhi, 10 to 16th October, 2022

Guest Lectures delivered

- Invited as a speaker at **One Day Workshop on Astronomy**, held at Sri Mahaveera College, Moodabidri on 6th December 2019.
- Invited as a Resource Person to speak on **Astronomy** at the Govinda Dasa College, N.S.S Camp on 25th November 2019
- Invited as a speaker at **One Day Teachers' Training Workshop on December 26th Annular Eclipse**, held at Pilikula Regional Science Center on 10th December 2019
- Invited as a speaker at **One Day Workshop on Astronomy** held at St. Philomena College, Puttur on 13th December 2019
- Invited as a Resource person at for **Eclipse Awareness for the 26th December Annular Solar Eclipse** at the following Schools:
 - *Delhi Public School, Surathkal* on 2nd November 2019

- V.K.R Acharya English Medium School, Kundapura on 12th November 2019
- Lion's English Medium School, Mundkur on 19th November 2019
- Nittur High School, Udupi on 20th November 2019
- Chelar Primary School on 25th November 2019
- Govt Girls Pre-University College, Udupi on 11th December 2019
- Govt Girls High School, Udupi on 11th December 2019
- Viveka Pre-University College, Kota on 12th December 2019
- Bhairumbe High School, Sirsi, on 16th December 2019
- St. Mary's Kannarpady, Udupi on 19th December 2019
- And lightning-talks on the same at around 50 other schools across Karnataka.

- Invited as a Resource person at for **Eclipse Awareness** for the **26th December Annular Solar Eclipse for Teachers** at:
 - Nodal Research Center for High School Teachers, Kundapur on 26th November 2019
 - Nodal Research Center for High School Teachers, Brahmavara on 12th December 2019
 - Dr. S J Nagalotimath (SJN) Science Centre, Belagavi on 18th December 2019

- Invited as Resource Person to talk on **Solar Eclipse** for KSR Education College Belagavi organized by Dr. K.S. Nagalotimath Science Center, Belagavi on 13th June 2020.

- Invited as Resource Person to talk on **Introduction to Quantum Mechanics**, at Govinda Dasa College, Surathkal, February 22nd 2021

- Invited as resource person for webinar organized by Karnataka Rajya Vignana Parishad on the topic **Khagola** on 14th March 2021.

- Invited as a resource person to talk on **Khagola** at the teachers training program organized by Dr. K.S. Nagalotimath Science Center, Belagavi for the teachers of Belagavi district, on 31st March 2021.

- Invited as resource person for the webinar on '**Astronomy Calendar**' organized by Dharwad Regional Science Center, Dharwad on 24th May 2021.

-  Invited as a resource person for the webinar on **Time in Indian Astronomy** by Global Academy of Technology, Bengaluru on 9th October 2021.
-  Invited as a resource person for the webinar on 'Extra Terrestrial Life' by St. Philomena College, Puttur on 1st December 2021.
-  Invited as resource person for the webinar on 'Black Holes and their Invisible Beauty' by Shri Mahaveera College, Moodabidri on 20th December 2021.
-  Invited as resource person for online talk on '**Calendar from Astronomy**' organized by BSKB Youth Wing on 30th January 2022.
-  Invited as a resource person for online lecture on '**Rotational Mechanics**' by Karnataka Science and Technology Academy on 19th February 2022.
-  Invited as resource person for talk on '**Celestial Sphere**' organized at SJB Institute of Technology, Bangalore on 24th February 2022.
-  Invited as resource person for talk on '**Milestones in Science and Technology**' at Christ King PU College on 2nd March 2022.
-  Invited as a Resource Person for the talk on '**Astronomy**' at the Dharward Regional Science Center on 14th March 2022 as a part of the State-Level Workshop on account of their Decennial celebrations.
-  Invited as a Resource Person by Pilikula Regional Science Center, Mangaluru to talk and demonstrate experiments on '**Equinox**' on 20th March 2022.
-  Invited as a resource person for talk on '**Astronomy**' at Vivekananda PU College for their summer education camp – 'Eureka' on 26th April 2022.
-  Invited as the resource person to talk on '**Indian Astronomy**' by the Southern Maine Astronomers Club , Maine, USA on 5th May 2022 CT (6th May IST).
-  Invited as the resource person to talk on '**Astronomy in India**' by *Universidad Galileo Instituto de Investigacion de Ciencias dela Tierra y Astronomia (IICTA), Guatemala* on 19th May 2022 as a part of their *Conferencia de Astronomia 2022*, conference.

- Invited as a Resource Person by Pilikula Regional Science Center, Mangaluru to talk on '**Asteroid Day**' at the Government Teachers Training Institute, Mangalore on 30th June 2022.
- Invited as a resource person to talk on '**Astronomy Activities**' at Poornaprajna Education Center, Sangameshwarapete on account of Founder's day on 4th July 2022.
- Invited as a resource person to talk on '**Astronomy at PAAC**' at Poornaprajna Education Center, Aldur on account of Founder's day on 4th July 2022.
- Invited as a resource person to talk on '**Astronomy Activities at PAAC**' at Poornaprajna Education Center, Belur on account of Founder's day on 4th July 2022.
- Invited as a resource person to talk on '**Astronomy Activities & Physics**' at Poornaprajna Education Center, Bhadrawati on account of Founder's day on 4th July 2022.
- Invited as a resource person for an online lecture on '**Rotational Mechanics**' by Karnataka Science and Technology Academy for the PU students of various districts across Karnataka on 8th July 2022.
- Invited as a resource person to talk on '**Fundamentals of Astronomy**' by the Abdul Kalam Space Club at Manipal PU College on 1st October 2022.
- Invited as a resource person to talk on '**Telescopes and The Sky**' during the World Space Week celebration at the Pilikula Regional Science Center, on 8th October 2022.
- Invited as a resource person to give lectures on Astronomy at Alva's International Cultural Jamboree, 21st to 27th December 2022.
- Invited as a resource person to talk on '**Gravitation**' – online by Karnataka Science and Technology Academy on 27th December 2022.
- Invited as a resource person to talk on '**Astrophysics**' and conduct a telescope training at Department of Physics, SDM Post-graduation and Research Center, Ujire on 7th January 2023.
- Invited as a resource person to talk on '**Motion in One Dimension**'– online by Karnataka Science and Technology Academy for PU Students, on 18th January 2023.

- Invited as a resource person to talk on 'The Celestial Sphere and Comet C2022/E3' by Pilikula Regional Science Center on 30th January 2023.

Conferences/Seminars/Workshops attended

- *International Planetarium Conference* organized by Pilikula Regional Science Center at Pilikula on 6th November 2019.
- *International Conference on AI Robotics and Automation* organized by ICT Academy (Online) , 14-18th October 2020
- *International Conference on IOT, High Performance and Edge Computing* by ICT Academy (Online) , 14-18th October 2020
- *International Conference on Signals, Communication and Embedded Systems* by ICT Academy (Online) , 14-18th October 2020
- *International Conference on Sensors, Energy and Hybrid Vehicles* by ICT Academy (Online), 14-18th October 2020
- *Webinar on Applications Of Thin Film Technology* organized by Dr. A.V. Baliga College of Arts & Science, Kumta, 24th September 2020
- *Virtual Conference on Contemporary Research in Physics 2020*, organized by Post Graduate Department of Physics, Vijaya College, Bangalore, 17th-19th December, 2020.
- *A Two Day Online National Conference on Nano Materials and Characterization Techniques in Physics and Materials Research*, Organized by Dr. A. V. Baliga College of Arts & Science, 01st & 02nd August 2020.
- *Literature and Pandemics - A Correlation and Societal Impact of the Pandemic*, organized by Dept. of English, Poornaprajna College And Post Graduate Center, Udupi 31st July, 2021
- *Webinar on Current Trends in Materials Science*, organized by Christian College, Chengannur, during 26-27 May, 2020.
- *Webinar on Post Covid Scenario - Role of Teachers in Building future generation* organized by MGM College, Udupi, 1st June 2020

- ④ Webinar on *Advanced Functional Materials via Chemical Vapor Deposition: Process Development and Application* organized by Sri Bhuvanendra College, Karkala, 11th August 2020
- ④ International Webinar on *The Changing Spirit of Education*, Dept. of English, Poornaprajna College, Udupi on 24th and 25th July 2020
- ④ State Level Conference on *Materials for Renewable Energy Applications: Challenges in Condensed Matter Physics* at St. Aloysius College. 14th December 2021.
- ④ Two-day National Level Workshop on *Nuclear Radiation: Experiments and Instrumentation* at St. Philomena College, Puttur, 19th & 20th May 2022.
- ④ Fourth Shaw IAU Workshop on *Astronomy for Education (Online)*, 15 to 17th November 2022.
- ④ Second Aditya-L1 Support Cell Workshop (AL1SC-2023) organized by ARIES Nainital and MCNS Manipal, 28th -30th December 2022.

Seminars/Workshops organized

- ④ Co-ordinator of One-Day Teachers' Training Workshop on *Astronomy and Eclipses*, 24th September 2019 at Poornaprajna College, Udupi, in association with Pilikula Regional Science Center and Association of Physics Teachers of Mangalore University.
- ④ Co-ordinator of One-Day Teachers' Training Workshop on *Annular Solar Eclipse*, 21st December 2019 at Poornaprajna College, Udupi, in association with Vision Group of Science and Technology
- ④ Co-ordinator of Two-Day online Workshop on *Astronomy & Cosmology*, 18-19 June 2020, from Poornaprajna College, Udupi
- ④ Co-ordinator of Online Webinar on *Opportunities in Space Science and Astronomy* on 22nd July 2020, from Poornaprajna College, Udupi.

Membership in national/international academic and professional bodies

- **Life Member** of Association of Physics Teachers of Mangalore University.
- **Life Member** of Indian Association of Physics Teachers [13720L8719]
- **Associate Member** of Astronomical Society of India [A1075]

Additional Information

- Organized the Annular Solar Eclipse Awareness and safe viewing techniques along with Dr. A.P. Bhat [retd. Principal, Poornaprajna College], reaching 1000 schools across Karnataka and in Kerala.
- Organized over 30 Sky-watch / Stargazing programs across Udupi and Dakshina Kannada Districts.
- Organized a Live Stream and Offline Sky-watch of the Great Conjunction on 20th December 2020 at Poornaprajna College with 7k views during the stream.
- Organized a Live Stream of the Lunar Occultation of Mars on 26th April 2021.
- Invited as Resource Person to Talk on Chandrayan 2, on Daijiworld TV, August 2019.
- Invited as Resource Person to talk on Starlink Satellite Chain by Public TV, TV9 – Kannada, News First, Namma TV channels, December 2021.
- Invited as Resource Person to talk on James Webb Space Telescope, on TV9 Kannada December 2021.
- Invited as a Resource Person to talk on the Earthquake on Mars by Public TV in May 2022.
- Invited as an expert by TV Channels on several occasions of prominent Astronomical Events.
- Guided students and Participated in the Citizen Science project on searching for Asteroids, organized by the International Asteroid Search Campaign.