

PADMANABH SHRIHARI SARPOTDAR

Office

Department of Physics
Khare Dhere Bhosale College, Guhagar,
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Permanent Address

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padphy@gmail.com

Personal Information

Gender: Male
DoB: 01 September 1988
Languages: English, Marathi, Hindi

Marital Status: Married
Nationality: Indian
Religion: Hindu

Education

Master of Science (M. Sc.), Physics (Elective: Astronomy and Space Physics), 64.9 %
University Department of Physics, University of Mumbai, Mumbai 2010

Bachelor of Science (B. Sc.), Physics (Applied Component: Electronics Instrumentation), 81.0 %
Gogate Jogalekar College, Ratnagiri. (Affiliated to University of Mumbai, Mumbai) 2008

Other achievements

UGC-CSIR NET (LS), Physical Sciences, 2011 All India Rank 108
JEST (Physics) 2011 All India Rank 460
GATE (Physics) 2011 All India Rank 739
UPSC Asst. Prof. in Physics (GCS) [Adv.No.03/2016] [By Govt. of Puducherry] All India Rank 003
IASc: Summer Research Fellowship Programme, 2010, at Raman Research Institute, Bangaluru

Professional Experience

1. Assistant Professor in Physics

Khare Dhere Bhosale College, Guhagar

June 2011- till date

(Affiliated to University of Mumbai)

• Major responsibilities in the academia:

1. Subject Expert for XI and XII std. Physics textbooks by Maharashtra State board of Secondary and Higher Secondary Education, Govt. of Maharashtra
2. Resource Person for Physics Olympiad OCSC Camp, HBCSE, Mumbai
3. Master trainer for MSDEED programme at IISER, Pune by MSFDA, Govt.of Maharashtra
4. Note maker for Astrophysics, for Maharashtra State Marathi Vishwakosh Nirmiti Mandal, Govt. of Maharashtra
5. IAPT SRC-08C: Organized a one week residential UG winter school in optics and modern physics
6. Popular lectures on diverse topics in Astronomy, Physics and Scientific Inquiry

• Courses taught:

1. Core: Classical Mechanics, Statistical and Thermal Physics, Special theory of relativity
2. Major & Minor: Modern Physics, Mathematical Physics
3. Skill based: Computer and Hardware Maintenance, ICT Tools

• Administrative Responsibilities:

1. 2025- till date: NEP UG Cell Member and Coordinator
2. 2023-2024: In-charge Principal
3. 2018-2023: Examination Committee Convener
4. 2012-2018: IQAC Coordinator
5. 2011- till date: Head, Department of Physics

- **Co-Curricular Activities in the college:**

1. Short term courses: Certificate course in Astronomy, Certificate course in Journalism, Introductory Course on Astronomy and Vedic Mathematics
2. Research support activities: National Seminar on IPR, National Conference
3. Student festivals: Come and Learn Science, National Science Day
4. YouTube Channel: KDBC Physics

2. Managed Network Expert/Subject Matter Expert (Freelance) April 2017 - November 2022

Chegg India Pvt. Ltd.

Subjects: Basic Physics, Advanced Physics

- Providing quality solutions to problems posted on the online platform, from undergraduate to graduate level

3. Project Fellow

University Department of Physics, University of Mumbai

August 2010 - June 2011

(Funding: UGC SAP Project)

- Worked on study of interaction of ZnO nanoparticles with BSA
- Technical Skills: Absorption spectrometer, Nanoindenter, Tribometer
- Computer Skills: Origin, L^AT_EX

Publications

- *Photo Electrochemical Performance of Spray Deposited CIGSZnO Composite Thin Film*
Indian Journal of Technical Education, Vol. 47, Special Issue 2, 2024, pp. 12-15; Amit S Joshi, P S Sarpotdar
- *Motion of Interstellar Dust Grains Under Radiation Pressure*
Resonance: Journal of Science Education, Vol. 27, Issue 12, 2022, pp. 2153-2159; P S Sarpotdar
- *A Simplistic Expression for the Escape Velocity from a Galaxy*
Physics Education, Vol. 37, Issue 03, 2021, pp. 37/03/05; Padmanabh S Sarpotdar
- *Introduction to the Techniques of Interferometry and Lunar Occultation in Radio Astronomy*
Resonance: Journal of Science Education, Vol. 23, Issue 12, 2018, pp. 1367-1373; P S Sarpotdar
- *Independent verification of Euler's formula in graph theory for n identical circles*
Bulletin of Pure and Applied Sciences- E (Mathematics and Statistics), Vol. 37, Issue 1, 2018, pp. 9-14; P S Sarpotdar, A D Yadav
- *1-D Simulation Studies for the Optimization of i- layer Thickness in a-Si:H Solar cell*
Bulletin of Pure and Applied Sciences- D (Physics), Vol. 36, Issue 1, 2017, pp. 1-9; P S Sarpotdar
- *Book Review on 'For the Love of Physics: From the End of the Rainbow to the Edge of the Time-A Journey Through the Wonders of Physics- By Walter Lewin with Warren Goldstein*
Current Science, Vol. 111, Issue 9, 2016, pp. 1548; P S Sarpotdar
- *Systematic investigation on the interaction of bovine serum albumin with ZnO nanoparticles using fluorescence spectroscopy*
Colloids and Surfaces B: Biointerfaces, Vol. 102, 2013, pp. 257-264; A Bhogale, N Patel, P Sarpotdar, J Mariam, PM Dongre, A Miotello, DC Kothari
- *A study of secondary cosmic ray flux variation during the annular eclipse of 15 January 2010 at Rameswaram, India*
Astroparticle Physics, Vol. 35, Issue 5, 2011, pp. 223-229; Ankush Bhaskar, Avadhut Purohit, M Hemalatha, Chintamani Pai, Anil Raghav, Chetan Gurada, S Radha, Virendra Yadav, Vishal Desai, Abhishek Chitnis, Padmanabh Sarpotdar, Anirudha Patankar

Conferences

- International Conference on Frontier Science and Technology: 21 and 22 November 2025
Organized by: Gogate Jogalekar College, Ratnagiri
Poster: Solar Cell Simulations using SCAPS: a novel approach into thin film photovoltaics
- National conference on Azadi Ka Amrit Mahotsav- Past Present and Future of Indian Science: 29 and 30 July 2022
Organized by: University of Mumbai, Mumbai
Presentation: The Colaba Geomagnetic Observatory: Historical Importance
- One day Multidisciplinary National e-conference on Socio-economic & Ecological Impacts of Climate Change with Reference to Indian Subcontinent: 15 February 2022
Organized by: Khare Dhere Bhosale College, Guhagar, Dist. Ratnagiri
Paper: Inclusion of Climate Change in Indian School and College Curricula: Present Status

Research Projects

- Study of One Dimensional Photovoltaic Solar Cell Structures Through Simulations Using SCAPS
Year: 2018-19 Grant: Rs. 40000/- Funded by: University of Mumbai Project Poster

Books/ Chapter Authorship

- Chapter: How quickly do we forget?- The Ebbinghaus model
Book: Research Trends in Science and Technology Volume V (ISBN 978 93 95847 03 2), 2023
- Chapter: 1D solar cell simulations using SCAPS with an illustrated example of a-Si:H p-i-n solar cell
Book: Thin Film Technology and its Novelties in Material Science (ISBN 978 93 91768 93 5), 2022

Sd/-
(Padmanabh Shrihari Sarpotdar)