

About the authors



Archana Pai is an assistant professor at School of Physics in Indian Institute of Science Education and Research Thiruvananthapuram. Her research interests span from gravitational wave detection schemes for modelled compact binaries as well as unmodelled systems, multi-detector detection schemes, astrophysical parameter estimation of gravitational wave sources, testing general relativity with gravitational wave observations, astrophysics with future space based detectors such as LISA as well as advanced interferometric designs. She has worked in several gravitational wave collaborations which include IGEC, Virgo, GEO600 and LIGO Scientific Collaboration. She is a member of IndIGO (Indian Initiative in Gravitational Wave Observations). She has authored several research publications and is an author of the gravitational wave discovery paper as a member of LIGO Scientific Collaboration.



Aditi Sen (De) works on the fundamental issues of quantum information and computation. Her research interests also include the possibility of processing quantum information in quantum optics, cold gas and condensed matter systems. She is currently an Associate Professor G at the Harish-Chandra Research Institute, Allahabad which has started a quantum information and computation section. She did her doctoral work in the University of Gdansk, and subsequently was a Humboldt postdoctoral fellow in Hannover, a Ramon y Cajal fellow in Barcelona, and an Assistant Professor in the Jawaharlal Nehru University, Delhi.



Shrabana Chakrabarti completed her Ph D in the field of experimental atomic, molecular and optical physics from the University of Calcutta in 2009. During her Ph D she was awarded the first prize for her research work and presentation in the Colloquium for Young Physicists organized by the Indian Physical Society at Saha Institute of Nuclear Physics in 2006.

She joined the Quantum Optics Group of Tyndall National Institute, Cork, Ireland as a research associate in 2008. In the same year, she joined the Quantum and Nonlinear Optics Group at Technical University Darmstadt, Germany as a post doctoral fellow. In 2011 she

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Vandana Nanal is a professor at Tata Institute of Fundamental Research (TIFR) in the Department of Nuclear and Atomic Physics. She got her Ph D in nuclear physics from TIFR in 1994. After post-doctoral work at Argonne National Laboratory, USA, she joined TIFR as a faculty in 1998. Her major areas of research are experimental nuclear physics and accelerator physics. She has played a major role in development and commissioning of superconducting linear accelerator, a joint TIFR–BARC Facility. She is leading the effort to set up an experiment to search for neutrinoless double beta decay in India.



Sandhya Choubey works in the High Energy Physics Group of the Harish-Chandra Research Institute (HRI). She did her Ph D work at Saha Institute of Nuclear Physics and obtained her degree from the University of Calcutta in 2002. Thereafter, between 2002 and 2006 she held postdoctoral positions at University of Southampton in UK, SISSA in Italy and University of Oxford in UK. She joined HRI as a member of the physics faculty in February 2006.



Nabamita Banerjee completed her Ph D in 2009 from Harish Chandra Research Institute. She spent three and half years in The Netherlands as a post doctoral fellow. She joined the Indian Association of the Cultivation of Science as an assistant professor in 2013 and then in 2014 moved to IISER Pune in the same position.



Sayali Bhatkar is currently a Ph D student at IISER Pune. She completed her B Sc at Gogate-Jogalekar College, Mumbai University.



Chhayabrita Maji (previously known as Chhayabrita Biswas) obtained Ph D in Physics from UGC-DAE Consortium for Scientific Research, Indore, under the guidance of Sudipta Roy Barman. She did post doctorate at BESSY-II, Helmholtz Zentrum Berlin, Germany, for which she received European Union Marie-Curie Fellowship. She was also recipient of S.N. Bose Fellowship while she was tenured faculty at S.N. Bose National Centre for Basic Sciences, Kolkata. Presently, she is DST-Woman Scientist-A at Indian Association for the Cultivation of Science, Kolkata. She is an expert of electronic structure exploration through techniques of photoelectron spectroscopy. Also, she has investigated physical properties, investigation with substantial contribution. Her areas of specialization are condensed matter physics, material science, surface science and nanostructures.



Preeti A. Bhoje received her Ph D in Physics from Goa University, Goa, in 2007 for her work on XAFS and thermopower study of Ni–Mn–Ga type shape memory alloys. As a postdoctoral fellow at Tata Institute of Fundamental Research, Mumbai, she explored the magnetic aspects of Heusler alloys and rare-earth oxides. Later she was awarded the JSPS postdoctoral fellowship at RIKEN/SPring-8 synchrotron source, Japan, where she worked extensively on the electronic structure of materials using photoemission spectroscopy. She joined IIT Indore in December 2011, and is currently associate professor of physics. Her research concentrates on developing an understanding of crystal, electronic and magnetic property correlation in functional materials.



Neha Hebalkar is a nanotechnologist with 19 years of R&D experience. She holds a Ph D degree in chemistry from the University of Pune. She has published more than 45 research papers in international journals and has applied for 7 patents. Her specialization includes developing nanomaterials of tailor-made properties suitable for desired application by innovative ways, process up-scaling and providing marketable products. She has experience in the full life cycle of product development from concept to commercialization.



Ranjani Viswanatha did her Integrated Ph D from the Indian Institute of Science, Bengaluru, India graduating in 2007. Subsequently, she joined the University of Arkansas, USA for her postdoctoral studies. In 2008, she moved to Los Alamos National Laboratory, USA as a postdoctoral fellow. Since 2011, she is a faculty at the Jawaharlal

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Mahima Makkar received her B Sc degree in Chemistry from Hindu College, Delhi University in 2013. She joined for integrated Ph D at Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru and obtained her M S degree in Chemical Science in 2016. Her research for M S thesis focused on synthesis and magnetic properties of dilute magnetic semiconductor quantum dots. She is currently pursuing her Ph D at the same Centre. Her research focuses on the magneto-optics and magneto-plasmonics of DMS materials.



Nandini Garg completed her Master's degree in Physics in 1989. She joined BARC in 1991, and has been working on phase transitions in materials at high pressures using both experimental and theoretical techniques. She has worked on several classes of materials like geophysically relevant materials, negative thermal expansion materials, pyrochlores, hydrogen bonded materials, metal organic frameworks, etc. She was instrumental in the indigenous development of several diamond anvil cells. She has also actively contributed in setting up the energy dispersive X-ray diffraction beamline BL-11 at INDUS2 RRCAT Indore, for which she received the DAE group achievement award. She is also the recipient of the DAE 'Scientific and Technical Excellence Award'. She is a member consultant for the International Union of Crystallography (IUCR), High Pressure Commission.



Sneha Menon earned her B Sc in Biotechnology and M Sc in Bioinformatics from University of Pune, and was awarded a research fellowship after qualifying the Bioinformatics National Certification (BINC) examination. She joined the CSIR-National Chemical Laboratory (NCL) as a Ph D student in 2013.



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Debashree Ghosh earned her B Sc degree with Chemistry Honours from Presidency College, Kolkata in 2002. She completed her M S degree in Chemical Sciences from the Indian Institute of Science, Bengaluru in 2005 and her Ph D degree in Chemistry from Cornell University in 2010. She was a postdoctoral research associate with Anna I. Krylov at the Chemistry Department in University of Southern California. Ghosh is currently a Senior Scientist at CSIR-National Chemical Laboratory, India, and an assistant professor at the Academy of Scientific and Innovation Research (AcSIR). Her current research focuses on the development of polarizable force fields and their hybrid frameworks for excited states, as well as development of low scaling accurate methods for strongly correlated systems.



Attreyee Ghosh is an assistant professor at the Indian Institute of Science (IISc), Bengaluru. She received her Ph D in Geophysics from Stony Brook University, USA, before joining the Geodynamics group at University of Southern California for a postdoc. Attreyee is an alumna of IIT Bombay and Columbia University, where she got a Master's degree. She joined IISc in 2012 and in the same year she published a research paper in *Science* showing how mantle flow, along with lithosphere topography and density, can explain global plate motions and stresses. She runs the computational Geodynamics lab at the Centre for Earth Sciences in IISc where, along with her students, she is investigating the dynamics of the deep earth and how that relates to surface observations.



Srishti Singh is pursuing her Ph D in Centre for Earth Sciences (CEaS), Indian Institute of Science (IISc), Bengaluru. She holds a Master of Science (Technology) degree in geophysics and Bachelor of Science degree with major in physics from Banaras Hindu University (BHU), Varanasi. She finished her master's dis-

sertation in ONGC Vadodara. She also did summer internships in Wadia (Dehradun), Oil India (Duliajan), JNCASR (Bengaluru), etc. She is interested in studying the role of mantle in geophysical processes. She likes to read and explore historical places.



Anisa Chorwadwala received her Ph D in Mathematics from University of Mumbai in 2007. Following this, she held postdoctoral positions at the Institute of Mathematical Sciences (IMSc), Chennai; Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy; and Tata Institute of Fundamental Research (TIFR), Mumbai. She has been on the faculty of IISER Pune since April 2011.



Mugdha Gadgil is a Scientist in the Chemical Engineering Division at the CSIR-National Chemical Laboratory, Pune. She obtained a B. Chem. Eng. from ICT (formerly UDCT), Mumbai and a Ph D in Chemical Engineering from the University of Minnesota. Prior to joining NCL, she worked as a Scientist in the Cell Culture Development, PD-Direct group at Invitrogen Corporation, MD.



Devapriya Chattopadhyay is a paleobiologist, interested in the ecology and evolution of marine molluscs. She received her Ph D in Geology from the University of Michigan. She is currently serving as an Associate Professor in the Department of Earth Sciences, IISER Kolkata. Using a combination of recent and fossil molluscs, she addresses topics such as individual response to biotic interaction, ecologic response to climate change, effect of physical environment on marine benthos diversity.