



Faculty Details proforma for DU Web-site

Title	Professor	First Name	Amitabha	Last Name	Mukherjee	Photograph
Designation		Professor				
Address		Department of Physics and Astrophysics				
Phone No	Office	+91-11-27667793				
	Residence					
	Mobile					
Email		am@physics.du.ac.in, amimukh@gmail.com				
Web-Page						
Educational Qualifications						
Degree		Institution			Year	
Ph. D.		TIFR/ University of Bombay			1981	
M. Sc. Physics		University of Delhi			1974	
B. Sc. (Hons.) Physics		University of Delhi			1972	
Career Profile						
Organisation / Institution		Designation		Duration		Role
University of Delhi		Professor		1998-		Teaching and Research
University of Delhi		Reader		1988-1998		Teaching and Research
University of Delhi		Lecturer		1986-1988		Teaching and Research
I. I. T. Kanpur		Research Associate		1983-1986		Research and Teaching
I. I. T. Bombay		Research Associate		1983		Research
TIFR		Visiting Member		1974-1982		Research
Administrative Assignments						
Director, Centre for Science Education and Communication (2003-2009);						
Head, Department of Physics and Astrophysics (Nov 2013 – Nov 2016)						
Areas of Interest / Specialization						
Theoretical High Energy Physics; Cosmology						
Science and Mathematics Education						
Subjects Taught						
At IITK: Physics 101 lab, Physics 102 lab, Modern Physics						
At DU: M. Sc. Physics Theory courses: Classical Mechanics, E. M. Theory, Quantum Mechanics I and II, Computational Physics I and II, Particle Physics						
M. Sc. Physics Laboratory course: Electronics (optional)						
Other: Introduction to computers, programming, numerical techniques and modeling, as part of paper VI of M. Sc. Environmental Biology						
Research Guidance						

Publications Profile			
Books edited/Book chapters			
<u>Year of Publication</u>	<u>Title</u>	<u>Publisher</u>	<u>Co-Author</u>
2015	"The School Mathematics Project..." in the 1 st Asian Sourcebook on Mathematics Education, (eds. B. Sriraman et al.), pp. 1539-1558	Information Age Publishing, Charlotte, NC, USA	V. S. Varma
2008	Math-Magic V	NCERT, New Delhi	Several
In Indexed/ Peer Reviewed Journals			
<u>Year of Publication</u>	<u>Title</u>	<u>Journal</u>	<u>Co-Author</u>
2017	Probing the cosmic distance duality relation using time delay lenses	J. Cosmol. Astropart. Phys. 2017(7) , 010	Akshay Rana, D. Jain, S. Mahajan, R.F.L. Holanda
2017	Constraining cosmic curvature by using age of galaxies and gravitational lenses	J. Cosmol. Astropart. Phys. 2017(3) , 028	Akshay Rana, D. Jain, S. Mahajan
2017	Revisiting dark energy models using differential ages of galaxies	J. Cosmol. Astropart. Phys. 2017(3) , 005	Nisha Rani, D. Jain, S. Mahajan, M. Biesiada
2016	Revisiting the Distance Duality Relation using a non-parametric regression method	J. Cosmol. Astropart. Phys. 2016 , 026	Akshay Rana, D. Jain, S. Mahajan
2015	Transition Redshift: New constraints from parametric and non-parametric methods	J. Cosmol. Astropart. Phys. 2015 , 045	Nisha Rani, D. Jain, S. Mahajan, N.Pires
2015	Dynamics of a scalar field, with a double exponential potential, interacting with dark matter	Int. J. Mod. Phys. D 24 ,1550068	V. Gupta, R. Kabir, D. Lohiya
2014	Reanalyzing the upper limit on the tensor-to-scalar perturbation ratio r_T in a quartic potential inflationary model	Physics Letters B 736 , 246	R. Kabir, D. Lohiya
2014	Tunnelling in a time-dependent quartic potential: possible implications for cosmology	J. Phys.: Conf. Ser. 484 , 012063	R. Kabir
2012	A search for records of planetary transits in India prior to the colonial period	Current Science 103 , 95	N. Rathnasree, B. S. Shylaja, G. Kaidala
Conference Presentations			
Plenary Talks			
<ol style="list-style-type: none"> 1. <i>Mathematics for All</i>, National Conference on Innovations in Mathematics Education: Current Trends and Issues, New Delhi, March 2017. 2. <i>Engaging with the nature of mathematics for elementary school</i>, International Seminar on Philosophy of Education, Bangalore, January 2013. 3. <i>Living Mathematics</i>, National Workshop on Mathematics, Raipur, September 2012. 			

Other Invited talks

1. *Mathematics education in pre-colonial India*, Second International Seminar on Philosophy of Education, Bangalore, May 2014.
2. *The fascination called Mathematics, "Let's mathematise..."*, National Conference on Mathematics Pedagogy, New Delhi, February 2014.

National Presentation

1. A. Mukherjee, *Primary Mathematics: curriculum and beyond*, Indian National Presentation at the 12th International Congress on Mathematical Education, Seoul, Korea, July 2012.

Contributed papers

1. A. Mukherjee, *Why is science boring? Scientific temper vs science*, National Conference on Scientific Temper, New Delhi, February 2014.
2. A. Mukherjee, *Science teaching in India: Experiments in multiculturalism*, International Conference on Education, Culture and Identity, Sarajevo, Bosnia-Herzegovina, July 2013.
3. R. Kabir and A. Mukherjee, *Scalar field theory with a time dependent potential and its application to cosmology*, International Conference on Gravitation and Cosmology, Goa, December 2011.
4. A. Mukherjee, *What is mathematics?* Symposium on Mind, Mathematics and Language, Annual Convention of NAOP, New Delhi, December 2010.
5. A. Mukherjee, *Teacher training for teaching mathematics*, International Conference on Issues in the In-service Development of Elementary Teachers, Bhubaneswar, October 2010.
6. A. Mukherjee, *Talking about science to undergraduates: story of an attempt*, IASS Symposium on Science Education in India, New Delhi, December 2009.
7. A. Mukherjee, *Re-envisioning the science curriculum*, National Seminar on Science Education, Delhi, February 2008.
8. S. Ali, A. Mukherjee, and J. Rajan, *Study of change in primary mathematics textbooks at grade 3 in Delhi government/municipal schools*, epiSTEME-2, Mumbai, February 2007.

Awards and Distinctions**Association With Professional Bodies****Other Activities**