

Prof. M. Sami

Centre for Theoretical Physics,
Jamia Millia University, New Delhi-
110025 Email: samijamia@gmail.com
sami@iucaa.ernet.in

Mobile: +91-9990840273, +91-11-26984830 (Direct), +91-11-299861717.

Webpage: <http://ctp-jamia.res.in/sami/>

Personal Details:

Father's Name : Bashir Ahmad
Date of Birth : 05/02/1955
Marital Status : Married
Residential Address : C-153, Sector-44, NOIDA.

Academic Qualifications:

- Moscow State University Moscow, Ph.D. "Higgs Boson Production in lepton-lepton and hadron-hadron Collisions" (1983).
- People's Friendship University, Moscow, M. Sc Physics, in Theoretical Physics, 1973 to 1978.
- People's Friendship University, Moscow, Research Associate, Worked on the Construction of Measures in Functional Spaces, July 1978 to 1979.

Academic Employment:

- Pool Officer, Dept. of Physics, University of Pune, India, 1983 to 1985
- Lecturer, Dept. of Physics, Jamia Millia Islamia, New Delhi, India, 1985 to 1994.
- Reader, Dept. of Physics, Jamia Millia Islami, New Delhi, India, 1994 to 2006
- Visiting Scientist at IUCAA, Pune, India, 2002 to 2005
- Professor, Centre for Theoretical Physics, Jamia Millia Islamia, New Delhi, India, Nov 28, 2006 till date.

Administrative Responsibilities:

- Director of Centre for Theoretical Physics at Jamia Millia University, New Delhi, January 12, 2007 till date.
- Provost, Boy's Hostels, Jamia Millia University, New Delhi, 1999 to 2000

Teaching Experience:

- Teaching various courses at undergraduate, graduate and post graduate levels since 1983.
- Taught Thermal Physics, Modern Physics, Nuclear Physics, Electricity and Magnetism and Mechanics at the undergraduate level, at the Department of Physics, Jamia Millia University, New Delhi, India.
- Taught Classical Mechanics, Quantum Mechanics, Mathematical Physics, Statistical Mechanics, Electrodynamics and Quantum Field Theory at the graduate level at the department of Physics, University of Pune (India) and Jamia Millia University.
- Taught a course on "Quantum Statistics" to the post graduate students at IUCAA in 2002 and 2003.

Awards & Fellowships:

- **Hon'ble President of India Visitor's award for path breaking research in Cosmology and Astrophysics 2015**
- ICTP Senior Associateship from 2006 to 2013
- Fellow of Indian Academy of Science (F.A.Sc.) – elected in 2009
- Fellow of National Academy of Science (F.N.A.Sc) – elected in 2009
- JSPS fellowship for short period from 2007 – 2008
- JSPS fellowship for a period of ten months from 2012 – 2013
- IUCAA Visiting Scientist from 2002 to 2005
- National Merit Scholarship (1970), High School U.P. Board.

Worked in Research Groups at following institutions:

- CERN(Geneva)
- ICTP(Italy)
- Portsmouth University(UK)
- IPMU, University of Tokyo
- KMI, University of Nagoya(Japan)
- Tokyo University of science
- IUCAA(Pune), India
- HRI, Allahabad, India and others

Nobel citation:

“**Dynamics of dark energy**” ([arXiv:hep-th/0603057](https://arxiv.org/abs/hep-th/0603057)), [[Edmund J. Copeland](#), [M. Sami](#), [Shinji Tsujikawa](#)] is cited by the Nobel committee document, 2011, on accelerating universe.

Membership of Academic Bodies:

- Visiting Scientist at IUCAA, Pune, India, 2002 to 2005
- Member, Governing Council, IUCAA, Pune, India 2009 – 2012
- Council Member IAGRG

National & International Projects:

- “Particle Physics Models of Inflation and Dark Energy and Their Observational Constraints”, DST, India – JSPS, Japan (June 1, 2007 – May 31, 2009)
- “Towards Understanding the Origin of Dark Energy, Dark Matter and Inflation”, DST, India – JSPS, Japan (June 30, 2009 – June 29, 2011)
- “Brane World Cosmology with Quintessence, Phantom Fields Dark Matter and Dark Energy, effectively described by Non-linear Sigma Models”, DST, India – RFBR, Russia (September 25, 2008 – September 24, 2010)
- “Models of Dark Energy: Theory and Observations”, DST, India (February 8, 2010 – February 7, 2013)

Selected Invited Talks and Seminars:

- “Cosmological Aspects of Rolling Tachyon Brane worlds: Some Observational Consequences”, IX International Conference on Particles, Strings and Cosmology, January 3-8, 2003 at Tata Institute of Fundamental Research, Mumbai.
- “Introductory Cosmology, course given at Introductory School in Astronomy and Astrophysics, held in Madhurai, India, from Sept 21 to Sept 26, 2003.
- Presented paper on “Problems of Relic Gravity Waves in Models of Quintessential Inflation” in ICGC-2004, held at Kochi, January 5 to 10.
- Delivered talk on “Unification of Inflation with Quintessence and Relic Gravity Waves” in the workshop on “Brane and Loop Quantum Cosmology, held at IUCAA in January 2004.
- Delivered talk on “Joining the Two Ends” in FTAG held in Sikkim in February, 2004.
- Delivered talk on “Recent Trends in Cosmology” at the deptt. of physics, Jamia Millia Islamia, New Delhi, 1st June 2004.
- Delivered two lectures on Gauge Invariant Formulation of Cosmological Perturbations in the workshop on Strings and Cosmology, held at IUCAA, Pune, OCT. 2004.
- Invited talk Problems and Prospects of Quintessential Inflation in IAGRG, Jaipur (India), December 2004.
- Invited short course on “Dark Energy” given in August, 2005 in the Thapo Group of Theoretical Physics, at Naresuan university, Thailand.
- Invited talks on “Dark Energy Models” in the Third Aegean Summer School held in Greece from September 26 to October 2, 2005.
- Invited talk in the workshop on Brane Worlds held in Portsmouth from 18 September to 30 September, 2006.
- Invited talk on “Cosmological relevance of scaling solutions”, delivered at Titech, Japan on June 28, 2007.
- Invited talk on “Dark Energy” delivered at Deptt. Of Physics, University of Nagoya, Japan on 7th May, 2008.
- Invited talk on “Dark Energy” at ‘DAE High Energy Physics Symposium’ held at Banaras Hindu University in October 2008
- Invited talk on “Dark Energy: What could it be?” at IPMU international conference on dark energy, Japan from June 22 to June 26, 2009
- Invited talk on “Dark Energy and its possible alternatives” on First IUCAA Reunion Meeting – 2009 on Gravitation and Astronomy: Frontiers in Theory and Observation from August 11 - 14, 2009, at IUCAA, Pune.
- Invited talk on “Understanding the cosmic acceleration” on 17th September, 2009 at HRI, Allahabad.
- Invited talk on “Cosmic acceleration: Dark energy and Modified theories of gravity” Kobayashi Maskawa Institute, Nagoya University, Japan, June 01, 2012
- Invited talk on “Cosmological constant and beyond” Tokyo University of Science, December 16, 2012
- Invited talk on “Late time cosmic acceleration: Dark energy and alternatives” 3rd International Workshop on Dark Matter, Dark Energy and Matter-Antimatter Asymmetry, Taiwan, December 28, 2012.

Memorial Lectures:

- P C Mahanta Memorial Lectures, delivered in 2011 at Guwahati University, Assam, India.
- Vaidya – Roychoudhury endowment award lecture, to be delivered in January 2014 at Nagpur

Conferences/Workshops Organized:

- Recent Advances in High Energy Physics and Cosmology, held at the Department of Physics, Jamia Millia University, New Delhi, 2000.
- Symposium in High Energy Physics and Cosmology, held at the Department of Physics, Jamia Millia University, New Delhi, 2001.
- Workshop on Strings and Cosmology, IUCAA, Pune, 2004.
- IAGRG24, held at the Centre for Theoretical Physics, Jamia Millia from 5-8 February, 2006.
- Two-days meeting on “Prospects and Problems in Gravitation and Cosmology” held at the Centre for Theoretical Physics, Jamia Millia Islamia from 29-30 January, 2008

Collaborations:

N. Dadhich, . V. Sahni, T. Padmanabhan , B. C. Paul , A. A. Majumdar , A. Mofazzal, S. Panda, R. Maartens, J. E. Lidsey, J-F, Dufaux, Shinji Tsujikawa, M. R. Garousi , E. J. Copeland, T. Shiromizu, Shin'ich Nojiri, S. D. Odintsov, G. Calcagni, John Ward and L. Amendolla.

Research Interests:

- String inspired cosmology, brane worlds.
- Models of dark energy and inflation.
- Cosmological Perturbations.
- D-brane inflation, reheating problem.