

Prof. M. Sami
FASc, FNASc
Recipient of President of India Visitor's Award
Dean, Faculty of Natural Sciences
Director, Centre for Theoretical Physics

Jamia Millia Islamia, New Delhi – 110 025
Email: samijamia@gmail.com, msami@jmi.ac.in
Mobile: +91-9990840273, +91-11-26984830 (Direct),
+91-11-299861717 Extn. 3218.
Webpage: <http://ctp-jamia.res.in/people/sami.html>



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:

- Dean, Faculty of Natural Sciences, Jamia Millia Islamia, April 2018-till date.
- Director of Centre for Theoretical Physics at Jamia Millia Islamia, New Delhi, January 12, 2007 - till date.
- Provost, Boy's Hostels, Jamia Millia Islamia, New Delhi, 1999 to 2000

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.)
- Fellow of National Academy of Science (F.N.A.Sc)
- JSPS fellowship (short term), 2007
- JSPS fellowship (long term), 2012
- IUCAA Visiting Scientist from 2002 to 2005
- Editor, International Journal of Modern Physics D (IJMPD)

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:

- Vice-President of BRICS Association of Gravity, Astrophysics and Cosmology, China
- 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)
- “Inflation and Late Time Acceleration of the Universe and its Observational Signatures”, DST, India - RFBR, Russia (March 1, 2018 – February 29, 2020)

Memorial Lectures:

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

Conferences / Workshops Organized / International Advisory Committee :

- 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
- Member Scientific Advisory Committee of BRICS Association of Gravity, Astrophysics and Cosmology in the First Symposium on Gravity, Astrophysics and Cosmology (BRICS - AGAC) held at Yangzhou University, China, October 18-20, 2017
- Member Scientific Advisory Committee of BRICS Association of Gravity, Astrophysics and Cosmology in the Second Symposium on Gravity, Astrophysics and Cosmology (BRICS - AGAC) to be held at University of KwaZulu Natal, South Africa during October 22-28, 2018

My Reviews:

- Late-time cosmic acceleration: ABCD of dark energy and modified theories of gravity
- Unification of inflation and dark energy a la quintessential inflation
- Why is Universe so dark?
- A primer on problems and prospects of dark energy
- Dark energy and possible alternatives
- Dynamics of dark energy
- Models of Dark Energy
- Unifying Brane World Inflation with Quintessence

Publications:

- Number of publications - 84
- Citations- Above 10,000

Collaborations:

A. Starobinsky, 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.

Recent Invited Talks and Seminars:

- 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.
- Invited talk on "cosmic acceleration :dark energy and alternatives" in the conference Astrophysics, gravitation and cosmology, Astana, Kazakhstan, October 8-10, 2014
- Invited talk on "scalar field and naturalness", National centre for theoretical sciences, NTHU, Taiwan, November 5-22, 2014
- Invited talk "Late time cosmic acceleration: Dark energy and alternatives", 2015 Annual Meeting of Chinese Physical Society, Division of Gravitation and Relativistic Astrophysics, Hangzhou, China, 21-26 June 2015.
- Invited talk "Quintessential inflation", in first symposium of the BRICS Association of Gravity Astrophysics and Cosmology 2017, Yangzhou University, China, 18-20 October 2017.
- Invited talk "Unification of inflation and late time acceleration" , in 3rd International Winter School Seminar on gravity, cosmology and astrophysics, Petrov School, Kazan University, Russia, 23 November – 3 December 2017.
- Invited talk "Quintessential inflation -- Relic gravity waves", in a Workshop on "Gravity and Cosmology 2018" at Kyoto University, Japan, during February 4 - April 6, 2018.

Research Interests:

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

Referees:

- Prof. T. Maskawa (**Nobel Laureate**), Professor Emeritus, Kobayashi-Maskawa Institute, Nagoya University, Japan
- Prof. Jayant V. Narlikar (**Padma Bhushan and Padma Vibhushan**), Professor Emeritus, IUCAA, Pune, India
- Prof. T. Padmanabhan (**Padma Shri**), Distinguished Professor, IUCAA, Pune, India
- Prof. A. Starobinsky (**The Kavli Prize 2014**), Professor, Landau Institute for Theoretical Physics of the Russian Academy of Sciences, Moscow, Russia
- Prof. Sudhakar Panda, Director, Institute of Physics, Bhubaneswar, India