CURRICULUM VITAE

Name: **SAUGATA MITRA**

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Current Occupation:

Working as an Assistant Professor in the Department of Mathematics, Ramakrishna Mission Vidyamandira from 21st March, 2017.

Previous Occupation:
Worked as an Assistant Professor in St. Xavier's College (Autonomous), Kolkata in the Department of Commerce (Evening) from 1st July 2015 to 20th March 2017.

EDUCATIONAL QUALIFICATION:

- **Ph.D**:
  Ph. D (Science) was done from the Department of Mathematics, Jadavpur University in 2016.
  Research field: Cosmology.
  Thesis Title: Universal Thermodynamics in Different Gravity Scenario's.
- **M. Sc**:
  M. Sc was done from the Department of Mathematics, Jadavpur University in 2013.
  Special Paper: Differential Geometry and its Application, Quantum Mechanics, General theory of Relativity and Cosmology, Numerical Methods.
- **B. Sc**:
  B. Sc was done from the Department of Mathematics, Jadavpur University in 2011. Special Paper: Mathematical Physics and Relativity, Mechanics.
- Qualified **Net** (Joint CSIR-UGC Test for Junior Research Fellowship and Eligibility for Lectureship) held on June 2013 (UGC-JRF, Rank: 59).

Paper presentation

- Presented a paper entitled " *Universal thermodynamics bounded by horizons*" in a National Conference on Non-linear dynamics, Analysis and optimization organized by Department of Mathematics, Jadavpur University during 9-10 January, 2014.

- Presented a paper entitled " *Conditions required for holding GSLT and thermodynamical equilibrium of the universe bounded by the event horizon in Einstein gravity"* in a National Conference on Emerging Trends in Physics of Fluids And Solids organized by Department of Mathematics, Jadavpur University during 6-7 March, 2014.

- Presented a paper entitled "*A comparative study of thermodynamical laws and thermodynamical equilibrium in different horizons"* in a National Seminar on Recent Perspectives on Nonlinear Mathematics and its Application organized by Department of Mathematics, Siksha Bhavana, Visva-Bharati during 25-26 March, 2014.

- Presented a paper entitled "*Universal thermodynamics in f(R) gravity theory: Modified entropy on the horizons*" in an International Conference on Geometry and its Applications, organized by Department of Mathematics, Jadavpur University during October 16-18, 2014.

- Presented a paper entitled "*Universal thermodynamics in Einstein-Gauss-Bonnet gravity theory: Modified entropy on the horizons*" in an International Conference on Dynamical Systems and Mathematical Biology, organized by Department of Mathematics, Jadavpur University during November 17-19, 2014.

- Presented a paper entitled " *Universal thermodynamics in Lanczos-Lovelock gravity*" in an International Conference on Non-linear Dynamics, Analysis and Optimization organized by Department of Mathematics, Jadavpur University during 9-11 December, 2015.

- Presented a paper entitled "*Wormhole solutions in f(R) gravity theory*" in National Conference on Non-Linear Dynamics and Applications organized by Department of Mathematics, Jadavpur University on 13th March 2020.

Workshop attended

- National Workshop and conference on Discrete Mathematics and its Applications (NWCDMA 2014), organized by Department of Mathematics, Jadavpur University during March 10-14, 2014.

- Workshop on Observational aspects of Astrophysics and Cosmology, organized by IRC Kolkata and Department of Physics, Visva-Bharati, Santiniketan, during November 3-4, 2014.

- Workshop on Statistical Applications to Cosmology and Astrophysics (STATCOSMO15), held at Indian Statistical Institute, Kolkata during February 10-13, 2015.

- National Workshop on "Recent Advances in Modeling & Computational Techniques in Applied Mathematics, organized by Department of Mathematics, Indian Institute of Engineering and Technology, Shibpur during 20th November to 24th November 2017.

Publications:

❖Paper

- **Saugata Mitra**, Subhajit Saha and Subenoy Chakraborty, "**Universal thermodynamics in different gravity theories: Modified entropy on the horizons",** published in *Physics Letters B, vol. 734, page 173 (2014).*
  DOI: 10.1016/j.physletb.2014.05.044
- **Saugata Mitra**, Subhajit Saha and Subenoy Chakraborty, "**A Study of Universal Thermodynamics in Brane World Scenario"**, published in *Advances in High Energy Physics*, vol. 2015, Article ID 430764 (2015).
  DOI: 10.1155/2015/430764
- **Saugata Mitra**, Subhajit Saha and Subenoy Chakraborty," **Universal thermodynamics in different gravity theories: Conditions for generalized second law of thermodynamics and thermodynamical equilibrium on the horizons**", published in *Annals of Physics*, vol. 355, page 1 (2015).
  DOI:10.1016/j.aop.2015.01.025
- **Saugata Mitra**, Subhajit Saha and Subenoy Chakraborty,"**Modified Hawking temperature and entropic force: a prescription in FRW model"**, published in *Modern Physics Letters A,* vol: 30, No: 13, 1550058 (2015).
  DOI: 10.1142/S0217732315500583
- Subhajit Saha, **Saugata Mitra** and Subenoy Chakraborty, "**A Study of Universal Thermodynamics in Massive Gravity: Modified Entropy on the Horizons",** published in *General Relativity and Gravitation*, vol: 47, article: 38 (2015).
  DOI: 10.1007/s10714-015-1877-5
- **Saugata Mitra,** Subhajit Saha and Subenoy Chakraborty, **"A study of Universal thermodynamics in Lanczos-Lovelock gravity"**, published in *General Relativity and Gravitation*, vol: 47, article: 69 (2015).
  DOI: 10.1007/s10714-015-1913-5
- Jibitesh Dutta, **Saugata Mitra** and Binod Chetry **, "Modified Bekenstein-Hawking System in *f (R)* Gravity",** published in *International Journal of Theoretical Physics* , vol: 55, page: 4272 (2016).
  DOI 10.1007/s10773-016-3052-5
- Bikram Ghosh, **Saugata Mitra** and Subenoy Chakraborty, "**Some specific wormhole solutions in f(R)-modified gravity theory**", published in *Modern Physics Letters A,* vol: 36, No: 5, 2150024 (2021).
  DOI: 10.1142/S0217732321500243

❖Book

- **Title:** Complex Analysis
  Author: K. C. Pal and **Saugata Mitra**
  Publisher: New Central Book Agency (P) Ltd.
  ISBN: 978 93 5255 166 8

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