AGNIVA GHOSH

Curriculum Vitae

Current Affiliation

Physics Graduate Student and Teaching Assistant
School of Physics & Astronomy, University of Minnesota Twin Cities, MN 55455, USA

Contact Information

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Education

Doctorate of Philosophy (Ph.D.) in Physics, August 2017-Present
- University of Minnesota Twin Cities, USA
- Advisor: Prof. Liliya L. R. Williams

Master of Science (M.Sc.) in Physics, July 2014-July 2016
- Indian Institute of Technology Kharagpur, India
- Masters' Thesis Advisor: Prof. Tirtha Sankar Ray

Bachelor of Science (B.Sc.) with Honors in Physics, June 2011-July 2014
- Serampore College (affiliated to University of Calcutta, India)

Research Interests

Theoretical Cosmology and Extragalactic Astrophysics: Gravitational Lensing in Galaxies and Clusters of Galaxies and Dark Matter.

Other Research Experience

- *April 2015 - May 2016:* Worked on Masters' Thesis on *Gauge Coupling Unification in Particle Physics* under supervision of Prof. Tirtha Sankar Ray at Indian Institute of Technology Kharagpur, India.
- *January 2017 - May 2017:* Worked as Project Linked Person on *Dark Matter and Inflation* under supervision of Dr. Arindam Chatterjee at Indian Statistical Institute Kolkata, India.

Awards and Achievements

- *Allen M. Goldman Fellowship*, School of Physics and Astronomy, University of Minnesota Twin Cities, 2021.
- *Outstanding Teaching Assistant Award* by School of Physics and Astronomy, University of Minnesota Twin Cities, 2018.
- *Certificate for Outstanding Teaching* by Center of Educational Innovation, University of Minnesota Twin Cities, Spring 2018 and Spring 2019.
- *Proficiency Award for Best Masters' Thesis* of Department of Physics, IIT Kharagpur in the session 2015-2016.
- 5-year *INSPIRE Scholarship for Higher Education* by Department of Science and Technology, Govt. of India, 2011.
- *Lectureship and Junior Research Fellowship* awarded by the Council of Scientific and Industrial Research and University Grants Commission, Govt. of India, 2015.

Conferences and Talks

- Contributed talk at BUFFALO Collaboration (Online) Meeting, 2021.
- Contributed talk at European Astronomical Society (EAS) Annual Meeting, 2021.

List of Publications

1. **Agniva Ghosh**, Liliya L. R. Williams and Jori Liesenborgs. *Free-form GRALE lens inversion of galaxy clusters with up to 1000 multiple images*, 2020, MNRAS, 494, 3998.
2. **Agniva Ghosh**, Liliya L. R. Williams, and Jori Liesenborgs. *Further support for a trio of mass-to-light deviations in Abell 370: free-form GRALE lens inversion using BUFFALO strong lensing data.* MNRAS, submitted December 2020, currently under review.
3. Ashish Kumar Meena, **Agniva Ghosh**, Jasjeet S. Bagla and Liliya L. R. Williams. *Exotic Image Formation in Strong Gravitational Lensing by Clusters of Galaxies - II: Uncertainties*, MNRAS, submitted April 2021, arXiv:2103.13617.