AGNIVA GHOSH Curriculum Vitae

CURRENT Physics and Astronomy Graduate Student

AFFILIATION School of Physics & Astronomy, University of Minnesota Twin Cities, MN 55455, USA

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EDUCATION **Doctorate of Philosophy (Ph.D.)** in Physics, August 2017-Present

• University of Minnesota Twin Cities, USA

• Advisor: Prof. Liliya 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.

Awards and Achievements

- Allen M. Goldman Fellowship, School of Physics and Astronomy, University of Minnesota Twin Cities, 2021.
- Outstanding Teaching Assistant Award, School of Physics and Astronomy, University of Minnesota Twin Cities, 2018.
- *Certificate for Outstanding Teaching*, 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*, Department of Science and Technology, Govt. of India, 2011.
- Lectureship and Junior Research Fellowship, Council of Scientific and Industrial Research and University Grants Commission, Govt. of India, 2015.

Conferences and Talks

- Invited talk at *International Space Science Institute (ISSI) Workshop on Strong Gravitational Lensing* in Bern, Switzerland, July 2022.
- Contributed talk at *BUFFALO Collaboration (Online) Meeting*, July 2021.
- Contributed talk at European Astronomical Society (EAS) Annual Meeting, July 2021.

LIST OF PUBLICATIONS

- 1. **Agniva Ghosh**, Dominic Adams, Liliya L.R. Williams, Jori Liesenborgs, Anahita Alavi and Claudia Scarlata, *An excursion into the core of the cluster lens Abell 1689*, 2022, MNRAS, in review.
- Agniva Ghosh, Liliya L. R. Williams, Jori Liesenborgs, Ana Acebron, Mathilde Jauzac, Anton M. Koekemoer, Guillaume Mahler, Anna Niemiec, Charles Steinhardt, Andreas L. Faisst, David Lagattuta and Priyamvada Natarajan, Further support for a trio of mass-

- to-light deviations in Abell 370: free-form grale lens inversion using BUFFALO strong lensing data, 2021, MNRAS, 506, 6144.
- 3. **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.
- 4. 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*, 2021, MNRAS, 506, 1526.
- 5. Kekoa Lasko, Liliya L. R. Williams, and **Agniva Ghosh**, *Model-Free Estimation of Cluster-Lens Properties: Center, Ellipticity, and Substructure*, 2022, MNRAS, in review.