

Mathew Syriac Madhavacheril

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Education

- **Stony Brook University**, New York – Physics PhD Candidate, 2011 – present
- **University of Cambridge**, UK – BA aff. Natural Sciences (Physics Tripos), 2009-2011, First Class
- **University of Delhi** (St. Stephen's College), Delhi – BSc. Physics (Hons.), 2006-2009, First Class

Publications

Leading author

- M. Madhavacheril, N. Sehgal for the ACT Collaboration, “Evidence of Lensing of the Cosmic Microwave Background by Dark Matter Halos”, *Physical Review Letters* (2015), picked as **Editor's Suggestion** and selected for **Viewpoint in Physics**
- M. Madhavacheril, N. Sehgal, T. Slatyer, "Current Dark Matter Annihilation Constraints from CMB and Low-Redshift Data", *Physical Review D* (2014)
- M. Madhavacheril, P. McDonald, N. Sehgal, A. Slosar, "Building Unbiased Estimators from Non-Gaussian Likelihoods with Application to Shear Estimation", *Journal of Cosmology and Astroparticle Physics* (2014)

Collaborating author

- S. Naess for the ACT Collaboration, "The Atacama Cosmology Telescope: CMB Polarization at $200 < l < 9000$ ", *Journal of Cosmology and Astroparticle Physics*, (2014)
- A. van Engelen, B. Sherwin, N. Sehgal for the ACT Collaboration, “The Atacama Cosmology Telescope: Lensing of CMB Temperature and Polarization Derived from Cosmic Infrared Background Cross-Correlation”, submitted to *Astrophysical Journal* (2014)

- R. Allison, S. Lindsay, B. Sherwin for the ACT Collaboration, "The Atacama Cosmology Telescope: Measuring radio galaxy bias through cross-correlation with lensing", submitted to *Monthly Notices of the Astronomical Society* (2015)

Invited Talks and Seminars

- Probing Dark Matter Annihilation using the CMB
University of Delhi, Delhi (2014)
- ACTPol: Detection of Lensing of the CMB by Dark Matter Halos
Princeton University, New Jersey (January 2015)
Columbia University, New York (February 2015)
Perimeter Institute for Theoretical Physics, Waterloo (May 2015)
Canadian Institute for Theoretical Astrophysics, Toronto (May 2015)

Awards

- Gates Cambridge Scholarship, **University of Cambridge** 2009
- Jennings Prize, Wolfson College, **University of Cambridge** 2011
- Jonathan Kaufman Student Excellence Prize in Physics, **Stony Brook University** 2014
- H. B. Silsbee Award for Excellence, **Stony Brook University** 2015

Experience

- Research Project Assistant, **SUNY Research Foundation** 2013 – present
- Teaching Assistant, **Stony Brook University** 2011 – 2013
- Faculty, Cambridge Tradition and Cambridge Prep Summer Schools, Oxbridge Academic Programs 2011 – 2012
- Gates Scholars Council Technology Officer, **University of Cambridge** 2009 – 2010
- Undergraduate Research Associate, **Saha Institute of Nuclear Physics**, Kolkata 2006 – 2009

Collaborations

- ACTPol Collaboration (<http://www.physics.princeton.edu/act/>)
- LSST Dark Energy Science Collaboration (DESC)