

## Dr. Simeon Bird

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### Research Interests

Numerical cosmology, massive neutrinos, the Lyman- $\alpha$  forest, primordial black holes, circumgalactic medium.

### Employment and Education

- 2015- *Einstein Fellow at Johns Hopkins University*
- 2014-2015 *McWilliams Fellow, Carnegie Mellon University*
- 2011-2014 *Member, Institute for Advanced Study (IAS), Princeton*
- 2011 *Ph.D. in Astronomy, University of Cambridge*  
Thesis: "Constraining Fundamental Physics From Cosmology"  
Advisors: Dr. Hiranya Peiris and Prof. Martin Haehnelt
- 2010 *M.A., University of Cambridge*
- 2007 *M. Math with Distinction, University of Cambridge*  
Part III Essay: "Non-Gaussianity from Inflation"  
Advisor: Dr. Paul Shellard
- 2006 *B.A. in Mathematics with Honours, University of Cambridge*  
First Class Degree from Pembroke College

### Awards

- 2007 *Tyson Medal, University of Cambridge*  
Awarded only at the discretion of the examiners to the best-performing undergraduate student in Part III for subjects related to astronomy.
- 2007 *Atiyah Prize, Pembroke College Cambridge*
- 2006 *Foundation Scholarship, Pembroke College Cambridge*
- 2006 *College Prize, Pembroke College Cambridge*
- 2003-2007 *Isaac Newton Trust Bursary, University of Cambridge*

### Advising Experience

- 2015 Alex Gurvich, REU student, Harvard CfA  
"The Column Density Distribution of the Low-Redshift Lyman-Alpha Forest in Illustris" (Gurvich et al 2016, submitted to ApJ)
- 2014 Joshua Suresh, under Prof. Hernquist, Harvard CfA  
"The Impact of Galactic Feedback on the Circumgalactic Medium" (Suresh et al 2015, MNRAS 448, p895-909)
- 2014 Kunting Eddie Chua, under Prof. Hernquist, Harvard CfA, research exam.

**Publications**     Total number of publications: 30  
Total number of citations: 873  
Number of first-author publications: 10  
h-index: 15

**Press Releases:**

“Did Gravitational Wave Detector Find Dark Matter?” JHU press release featured in New Scientist, Reddit, National Geographic, Washington Post, La Repubblica, Ciel et Espace, Vice.com, Forbes.com, the Mail Online and Symmetry magazine.

**Teaching Experience**

2008             Supervisor, Cambridge Astrophysics Part II Relativity  
Led tutorials and graded.

2008             Demonstrator, Computer-Aided Teaching of All Mathematics (CATAM)  
Led programming tutorial sessions for entire undergraduate year.

2007             Research Assistant, Cambridge University  
Evaluated programming languages for undergraduate teaching.

**Selected Invited Talks**

September 2016     ITC Colloquium, Harvard, MA

April 2016             Perimeter Institute Seminar, Waterloo, ON, Canada

February 2015         UC Berkeley seminar, Berkeley, CA

July 2014             IGM Matters Conference, Heidelberg, Germany

January 2014          Circumgalactic Medium Workshop at Notre Dame, IN, USA

December 2012        KICP, U. Chicago, Chicago, IL

April 2012             Finding the Neutrino Mass Workshop, Valencia, Spain

June 2011             Colloquium, Leicester University, UK

September 2008      Invited speaker, UKCosmo, Manchester, UK

**Outreach Talks**

April 2015             Allegheny Observatory, Pittsburgh.

2009                  Cambridge University, UK

**Skills**

Programming        Extensive C++, Python, MPI.

Languages            Intermediate French and Italian, Basic German

## **Professional Service**

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|--------------|---|
| 2013         | Informal Seminar organiser, IAS Astrophysics                        |
| 2012         | Cosmology Lunch organiser, IAS Astrophysics and Princeton Astronomy |
| 2008-2011    | Student Representative, Cambridge IoA Computing Advisory Committee  |
| 2011-present | Referee for PRL, PRD, ApJ, MNRAS, JCAP                              |