

## Samuel (Sam) N. Lindsay

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### CONTACT INFORMATION

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### RESEARCH INTERESTS & EXPERIENCE

**Cosmology and large-scale structure** – Probing the formation and evolution of large-scale structure over cosmic time, using radio galaxies as mass tracers. My graduate work has involved the use of multi-wavelength surveys (FIRST, GAMA, SDSS, VIDEO, COSMOS etc.) to match optical observations to radio and compute the bias of radio galaxies, using auto-correlation functions. I have also directly obtained optical spectra of optically-faint radio sources and carried out the appropriate data reduction to measure their redshifts.

### EDUCATION

#### PhD, Astrophysics

**University of Hertfordshire, UK**

October 2010 – April 2014 (Expected)

- Thesis Title: ‘*Cosmology with Radio Surveys*’ [provisional]
- Supervisor: Dr. Matt Jarvis (Oxford)

#### MSci, Physics with Theoretical Physics

**Imperial College London, UK**

September 2005 – June 2009

- Thesis Title: ‘*Theory and Simulation of Large-Scale Dark Matter Structure Formation*’
- Supervisor: Dr. Carlo Contaldi

Advanced modules including: General Relativity, Quantum Field Theory, Advanced Particle Physics, Cosmology, Astrophysics.

### JOURNAL PUBLICATIONS

**S. N. Lindsay**, M. J. Jarvis and K. McAlpine, ‘*Clustering of Radio Galaxies in the VIDEO Survey*’, MNRAS, 2013 (In preparation)

**S. N. Lindsay**, M. J. Jarvis, M. G. Santos, M. J. I. Brown, S. M. Croom, S. P. Driver, A. M. Hopkins, J. Liske, J. Loveday, P. Norberg and A. S. G. Robotham, ‘*Galaxy and Mass Assembly (GAMA): The Evolution of Bias in the Radio Source Population*’, MNRAS, 2013 (Submitted)

A. Raccanelli, G.-B. Zhao, D. J. Bacon, M. J. Jarvis, W. J. Percival, R. P. Norris, H. Röttgering, F. B. Abdalla, C. M. Cress, J.-C. Kubwimana, **S. Lindsay**, R. C. Nichol, M. G. Santos and D. J. Schwarz, ‘*Cosmological measurements with forthcoming radio continuum surveys*’, MNRAS, 424, 801 (2012)

### PRESENTATIONS

‘*Evolution of Bias in Radio Galaxies*’ poster presentation at Ripples in the Cosmos, July 22, 2013

‘*Evolution of Bias in the Radio Source Population*’ contributed talk at Radio Astronomy in the LSST Era, May 7, 2013

### CONFERENCES & WORKSHOPS ATTENDED

- ‘Synergistic Science with Euclid and the Square Kilometre Array’, 16–18 September 2013, University of Oxford, UK
- ‘Ripples in the Cosmos’, 22–26 July 2013, Durham University, UK
- ‘Radio Astronomy in the LSST Era’, 6–8 May 2013, National Radio Astronomy Observatory/University of Virginia, USA
- ‘Cape Town International Cosmology School’, 15–28 January 2012, Stellenbosch Institute for Advanced Studies, South Africa
- ‘STFC Introductory Summer School in Astronomy for New Research Students’, 6–10 September 2010, University of Warwick, UK

OBSERVING EXPERIENCE	<ul style="list-style-type: none"> <li>● <b>New Technology Telescope</b> (3.6m), La Silla, Chile: 5 nights Long slit spectroscopy with EFOSC2, March 2012</li> <li>● <b>Isaac Newton Telescope</b> (2.5m), Roque de los Muchachos, La Palma: 3 nights Imaging with WFC, March 2011</li> <li>● <b>William Herschel Telescope</b> (4.2m), Roque de los Muchachos, La Palma: 3 nights Long slit spectroscopy with ISIS, March 2011</li> </ul>
TEACHING EXPERIENCE	<p><b>University of Hertfordshire</b>, Hatfield, UK</p> <p><i>Mathematics Tutor</i> <span style="float: right;"><b>January 2011 to June 2011</b></span></p> <ul style="list-style-type: none"> <li>● Engineering Mathematics course for 1<sup>st</sup> year BSc Engineering students</li> <li>● Running weekly tutorials for approx. 30 students and marking exam scripts</li> </ul> <p><b>Freelance</b></p> <p><i>Private Tutor</i> <span style="float: right;"><b>January 2009 to Present</b></span></p> <ul style="list-style-type: none"> <li>● One-to-one and small group private tuition for pupils aged 13-19 approx.</li> <li>● KS3, GCSE, A-level and early undergraduate level Science and Mathematics</li> </ul>
COMPUTING SKILLS	<ul style="list-style-type: none"> <li>● Programming in IDL and C++ languages</li> <li>● Spectroscopic data reduction using IRAF</li> <li>● Manipulating large catalogues using TOPCAT</li> <li>● Familiar with Mac OS X, Linux and Windows operating systems</li> <li>● Proficient user of <math>\LaTeX</math>, Word and PowerPoint</li> </ul>
OTHER SKILLS & INTERESTS	<ul style="list-style-type: none"> <li>● National Academy of Sports Medicine (NASM) Level 2 qualified Fitness Coach: Employed by David Lloyd Leisure since 2006 as a trainer and duty manager</li> <li>● Experienced rower and sculler representing Imperial College Boat Club and Vesta Rowing Club at British Universities events, National Championships and Henley Royal Regatta</li> <li>● Recreational musician and singer: Five years in a rock band, touring venues in and around London, and recording multiple original albums</li> <li>● Amateur photographer, particularly high dynamic range photography</li> <li>● Spanish and French literacy to GCSE level (A*)</li> </ul>
REFERENCES AVAILABLE TO CONTACT	<p><b>Dr. Matt J. Jarvis</b> (e-mail: <a href="mailto:matt.jarvis@astro.ox.ac.uk">matt.jarvis@astro.ox.ac.uk</a>; phone: +44(0) 1865 (2)83654)</p> <ul style="list-style-type: none"> <li>● University Lecturer in Astrophysics, Department of Physics, University of Oxford</li> <li>◇ Denys Wilkinson Building, Keble Road, Oxford, OX1 3RH, UK</li> <li>★ <i>Dr. Jarvis is my current PhD supervisor.</i></li> </ul> <p><b>Dr. Carlo R. Contaldi</b> (e-mail: <a href="mailto:c.contaldi@imperial.ac.uk">c.contaldi@imperial.ac.uk</a>; phone: +44 (0)20 7594 1527)</p> <ul style="list-style-type: none"> <li>● Reader in Theoretical Physics, Imperial College London</li> <li>◇ Blackett Laboratory, Imperial College London, London, SW7 2AZ, UK</li> <li>★ <i>Dr. Contaldi was my MSci project supervisor.</i></li> </ul>