Ben Hoyle

Personal Information

Nationality: British
DOB: 12/12/1979

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Contact Details

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Education & Qualifications

- **The University of Portsmouth** — Portsmouth, U.K.
  PhD Cosmology and Astrophysics — *Oct. 2005 - Jan 2009 [Expected]*
  - PhD Thesis: Constraining Cosmological Parameters using Clusters of Galaxies.

- **The University of Exeter** — Exeter, U.K.
  MPhys Theoretical Physics with North American Study 2:1 — *Oct 1998 - Jun 2002*
  - Master Thesis: Chaotic ferning patterns in glycoaminoglycans: Their structure and form.

- **University of New Mexico** — Albuquerque, N.M., U.S.A.
  Year abroad studying Theoretical Physics — *Aug 2000 - May 2001*

- **North Devon College** — Barnstaple, Devon, U.K.
  A levels — *Aug 1996 - June 1998*
  - Mathematics, Further Mathematics, Physics, [ABB].

Teaching Experience

Intercultura — Heredia, Costa Rica
Free lance English teacher — *Sept. - Dec. 2004*
- Substitute English teacher, while studying Spanish.

Akademie fuer Fremdsprache — Berlin, Germany
Free lance English teacher — *Sept. 2002 - May 2004*
- Teaching general and technical English at levels from beginner to advanced with varying group sizes for adults.

The Oxford College — Barcelona, Spain
English teaching qualification and experience — *August 2002*
- Trinity Cert. TESOL qualification.

Skills & Relevant Experience

Three years of cosmology and astrophysics research experience including:

Experienced IDL programmer.	Web design experience using:
Coding theoretical predictions.	PhP, MySQL, JavaScript, CSS & HTML.
Manipulating and cross correlating massive datasets.	Web site administrator for LOFAR-U.K.
Regular SDSS Casjobs user.	LoC member for the ICG '*Modified Gravity*
Experienced CAMB user.	*on Cosmological Scales*' workshop.
Active member of the XMM Cluster Survey.	Observing experience at NOAO Kitt Peak, A.Z
Member of the SDSS cluster working group..	Proficient in German and Spanish.
In collaboration with Bootes HST.	

Publications & Talks

'Testing modified Gravity models using the cluster mass function' Hoyle *et al.* in prep

'Measuring the magnification bias of MaxBCG clusters' Hoyle *et al.* in prep

'Summed optical cluster luminosity as a measure of X-ray derived Cluster Halo Mass'
Hoyle *et al.* in prep.

'Testing hierarchical assembly in the early universe using brightest cluster galaxies.' Chris
A. Collins, John P. Stott, Matt Hilton, S. Adam Stanford, Michael Davidson, Mark Hosmer, **Ben
Hoyle**, Scott T. Kay, Andrew Liddle, Ed Lloyd-Davies, Robert G. Mann,Nicola Mehrtens,
Christopher J. Miller, Robert C. Nichol, A. Kathy Romer, Kivanc Sabirli,Martin Sahlen, Pedro T.
P. Viana & Michael J. West. Submitted to Nature.

'The XCS: Forecasting cosmological and cluster scaling-relation parameter constraints'
Martin Sahln, Pedro T. P. Viana, Andrew R. Liddle, A. Kathy Romer, Michael Davidson, Kivanc
Sabirli, Ed Lloyd-Davies, Mark Hosmer, Chris A. Collins, Peter E. Freeman, Matt Hilton, **Ben
Hoyle**, Scott T. Kay, Robert G. Mann, Nicola Mehrtens, Christopher J. Miller, Robert C. Nichol,
S. Adam Stanford, Michael J. West, for the XCS Collaboration. astro-ph/0802.4462

'The XMM Cluster Survey'	Belfast, Ireland
U.K. National Astronomical Meeting	*March 2008*
'Measuring the Cosmic Magnification'	Cape Town, South Africa
The University of Cape Town	*April 2008*
'Fitting curves to data with asymmetric error bars'	Langebaan, South Africa
The JEDI workshop	*April 2008*
'Cosmological analysis using clusters of galaxies'	Portsmouth, U.K.
The Institute of Cosmology and Gravitation	*May 2007*

Public Outreach

July 2008 Tutored a 17y old work experience student at the ICG. We looked at cluster mass
reconstruction using strongly lensed images.

July 2007 Tutored a 16y old work experience student at the ICG. Project examined the need for dark
matter and energy to explain observations.

Feb. 2007 Talk at a local secondary school about life as a physicist.

Dec. 2006 Two day demonstration in the Institute of Physics 'Lab in a Lorry'. Explaining physical
processes to groups of school children.

Research Interests

Mass measurements of galaxy clusters.	Multi-wavelength cluster astrophysics.
Cross correlating massive datasets.	Cosmological parameter estimation.
Tests of Modified Gravity.	Statistics in Cosmology.

References

Prof. Bob Nichol	**Dr. Kathy Romer**	**Dr. Adam Stanford**
bob.nichol@port.ac.uk	romer@sussex.ac.uk	adam@igpp.ucllnl.org
The ICG,	Dep. of Physics and Astronomy,	Physics/Lawrence Livermore National Laboratory,
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Portsmouth,	East Sussex,	California,
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