

## Mark S. Rosin - Curriculum Vitae

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Nationality: British and USA  
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UCLA Department of Mathematics  
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Los Angeles, CA  
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### Current Position

Postdoctoral Scholar (US Department of Energy grant) *University of California, Los Angeles*, 2010

### Education

**Ph.D., Theoretical Plasma Physics (Advisor: A.A.Schekochihin)**, 2010  
Department of Applied Mathematics and Theoretical Physics (DAMTP) *University of Cambridge*

**MSci Physics<sup>1</sup>, First Class, Top of Year**, 2006  
Department of Physics *University of Bristol*

### Publications

“Global solutions for the galactic magnetorotational instability with Braginskii viscosity”,  
M. S. Rosin, A. J. Mestel, and A. A. Schekochihin,  
*MNRAS*, (In Preparation, 2010).

“A nonlinear theory of the parallel firehose and gyrothermal instabilities in a weakly collisional plasma”,  
M. S. Rosin, A. A. Schekochihin, F. Rincon, and S. C. Cowley,  
*MNRAS*, (Accepted, 2010). [e-print: <http://arXiv.org/pdf/1002.4017>].

“The magnetoﬂuid dynamics of magnetized cosmic plasma: firehose and gyrothermal instabilities”,  
A. A. Schekochihin, S. C. Cowley, F. Rincon, and M. S. Rosin,  
*MNRAS*, **405**, 291, (2010). [e-print: <http://arXiv.org/pdf/0912.1359>].

“Perceptions and weapons implications in nuclear fusion”,  
M. S. Rosin,  
*Journal on Science and World Affairs*, (Accepted, 2009).

“Nonlinear growth of firehose and mirror fluctuations in astrophysical plasmas”,  
A. A. Schekochihin, S. C. Cowley, R. M. Kulsrud, M. S. Rosin, and T. Heinemann,  
*Phys. Rev. Lett.*, **100**, 081301, (2008). [e-print: <http://arxiv.org/pdf/0709.3828>].

### Academic Honours and Awards

Leverhulme Visiting Scholar	<i>University of Oxford</i> , 2009, 2010
Cambridge Philosophical Society Research Grant	<i>University of Cambridge</i> , 2009
Darwin College Travel Bursary for Science	<i>University of Cambridge</i> , 2007
Science & Technology Facilities Council Ph.D. Studentship	<i>University of Cambridge</i> , 2006
1 <sup>st</sup> Prize Bristol Plasma Computer Modelling Competition	<i>University of Bristol</i> , 2006
University of Bristol Staff Prize for Physics	<i>University of Bristol</i> , 2006

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<sup>1</sup>This is a British degree equivalent to a BSc plus a one year Masters degree.

Masters Project Commendation Prize	<i>University of Bristol</i> , 2006
Masters Poster Commendation	<i>University of Bristol</i> , 2006
Dean's Letter of Commendation for Academic Performance	<i>University of Bristol</i> , 2004

### Computing Experience

Programming: Fortran 90, IDL, Visual Basic, Subversion  
 Operating Systems: Linux, MAC OS, Microsoft Windows  
 Mathematical Software Packages: Maple, Mathematica

### Public Outreach and Awards

£7,500 Science & Technology Facilities Council Science in Society Award	<i>University of Cambridge</i> , 2010
President and seminar series organiser, Cambridge University Student/Young Pugwash	2009
Organiser, Astrophysical Fluids Group open day, DAMTP, Cambridge Science Week	2009
Principal Investigator, Guerilla Science Outreach Project, <a href="http://www.guerillascience.co.uk">www.guerillascience.co.uk</a>	2009
£15,000 Science & Technology Facilities Council Science in Society Award	<i>University of Cambridge</i> , 2008
Co-curator, Guerilla Science Outreach Project, <a href="http://www.guerillascience.co.uk">www.guerillascience.co.uk</a>	2008
Curator, The Science of Climate Change session, Guerilla Science Outreach Project	2008
Volunteer, Guerilla Science Outreach Project, <a href="http://www.guerillascience.co.uk">www.guerillascience.co.uk</a>	2007
Volunteer, Science Alive	<i>University of Bristol</i> , 2004

### Presentations

American Phys. Soc Plasma Conference, poster	<i>Chicago</i> , 2010
CMPD/CMSO Winter School	<i>UCLA</i> , 2008, 2009, 2010
DAMTP, Astrophysical Fluid Dynamics Seminar	<i>University of Cambridge</i> , 2007, 2009
Physics Department, Plasma Physics Group	<i>Imperial College London</i> , 2009
International Student/Young Pugwash Conference on Science & World Affairs	<i>The Hague</i> , 2009
UK Magnetohydrodynamics (MHD) Conference	<i>University of Salford</i> , 2008
British Applied Maths Conference (BAMC), poster	<i>University of Manchester</i> , 2008
Darwin College Science Seminar	<i>University of Cambridge</i> , 2008

### Conferences and Workshops

American Phys. Soc. Plasma conference	<i>Chicago</i> , 2010
UCLA (CMPD/CMSO) Plasma Winter School	<i>UCLA</i> , 2007, 2008, 2009, 2010
Institute of Physics Plasma Physics Conference	<i>University of Warwick</i> , 2009
International Student/Young Pugwash Conference on Science & World Affairs	<i>The Hague</i> , 2009
British Applied Maths Conference (BAMC)	<i>University of Manchester</i> , 2008
UK MHD Conference	<i>University of Salford</i> , 2008
Les Houches Summer School: Dynamos	<i>Les Houches</i> , 2007
UK MHD Conference	<i>University of Newcastle</i> , 2007
PPARC High Performance Computing School	<i>University of St Andrews</i> , 2007