

Curriculum Vita

Dr. Lyndsay Fletcher

Contact

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Area of Expertise

Solar Physics: solar flare theory and observation, coronal magnetism

Relevant Employment and Educational History

Education

10/85 - 06/89 B.Sc. (Hons, 1st class), University of Glasgow
10/89 - 12/92 Ph. D., University of Glasgow (award, July 1993)

Employment

01/93 - 01/96 Postdoctoral Researcher, Utrecht University, The Netherlands
02/96 - 12/97 Research Fellow, European Space Agency, Noordwijk, The Netherlands
12/97 - 05/98 Honorary Research Fellow, Glasgow University
05/98 - 03/00 Senior Physicist, Lockheed Martin Solar and Astrophysics Lab, California
04/00 - 09/00 Postdoctoral Research Assistant, University of Glasgow
10/00 - 01/06 Lecturer in Astronomy, University of Glasgow
02/06-present Reader in Solar Physics, University of Glasgow

Research Experience

Extensive experience in (1) the development of test-particle codes for acceleration and transport of charged particles in magnetised plasmas, with solar and astrophysical applications; (2) the analysis of data from space-based instruments including RHESSI, *Yohkoh* SXT/HXT, SoHO/CDS/MDI/EIT and TRACE. Experience in mission operations: as (1) SOHO Science Operations Leader/Joint Observing Program leader (1 month) at the SOHO Experimenters Operations Facility at NASA/Goddard Spaceflight Center; (2) *Yohkoh* SXT Chief Observer at ISAS Japan (4 months), commanding and monitoring the telescope; (3) RHESSI Chief Observer, Berkeley, USA (2 weeks)

Publications Summary

59 published refereed articles (including 3 book chapters), 31 conference proceedings, popular articles and book reviews.

Selected Research-Related Public Service Positions

PPARC Solar System Science Advisory Panel (Sept 2004 – Aug 2007)
Advanced Technology Solar Telescope Science Working Group Member (Aug 2005 -)
American Astronomical Society Hale and Harvey Prize Committee (2003 - 2006)
Working Group Leader - RHESSI satellite workshop series (2002 - 2007)
Secretary, European Physical Society Solar Physics Division (Sep 2005 -)
Editorial Board for the Journal 'Solar Physics' (2006-2009)
Editor, UK Solar Physics Newsletter
Chair, UK Solar Physics (2007 – 2010)
Member, Council of the Royal Astronomical Society (2006-2009)
Member, International Astronomical Union Commission 10 on Solar Activity (2006-)
STFC Projects Peer Review Panel (2010 -)
Leader, ISSI international team on flare chromospheres (2009-2010)

Summary of Grant income

July 2001 – PPARC Short-term Visitor Grant (Co-I, £6,085)
Sept 2001 – EPSRC/CASE studentship+costs (Co-I, £18,000)
Sep 2001 – Lockheed Martin Consultancy Agreement (PI, £5,178)
May 2002 - Nuffield Foundation New Lecturer Award (PI, £4,798)
Aug 2002 – PPARC Rolling Programme (Co-I, £511,735)
May 2004 - PPARC Rolling Programme, Bridging Funds. (Co-I)
Feb 2005 – PPARC/CASE studentship + additional costs (P.I. £50,310)
March 2005 – PPARC Rolling Programme (Co-I, £780,991)
October 2006 – EC Marie Curie Network (Co-I, 270,690.40 EURO)
March 2008 – STFC Rolling Programme (Co-I, ~£1.4M)
March 2009 – Leverhulme Grant (Co-I, £143k)
Additionally, around £5,000 travel support from various sources (Royal Society, NASA, European Space Agency, US National Solar Observatory.) over the last five years to take up invitations to speak and to participate in extended research programmes.

Teaching Activities

Postgraduate-level Summer School Teaching

PPARC/STFC Introductory and Advanced summer courses in Solar and STP, 2000, 2002-2007
April 2002, June 2009 – ‘Solar Magnetism’ School, Dwingeloo, the Netherlands
March 2006 – “The Physics of the Sun: The Active Sun on your Active Desktop”, L’Aquila, Italy
July 2007 - 2009 – Culham International Summer School in Plasma Physics

University Teaching

2000-2004 Head of 1st year Astronomy Laboratories
2005-present Head of 2nd year Astronomy
Level 1 Stellar Structure and Evolution (Utrecht University, 8 hrs); Life in the Universe (10hrs);
Observational Methods (8 hrs); Physics for Engineers Tutorials (5 hours); Solar System Physics I
(6hrs), Stellar Physics II (8 hours)
Level 2 Stars and their Spectra (10 hrs)
Level 3/4 Stellar Structure and Evolution I (11 hrs); Instruments for Optical and Radio II(11 hrs);
Natural and Laboratory Plasmas II (11hrs), Astronomical Data Analysis (11 hours)
Postgrad. SUPA lectures in Astrophysical Plasmas (4 hrs)

Public Outreach Activity

I am committed to engaging the public’s interest in science in general, and solar physics in particular. In recognition of this I have received a Royal Society of Edinburgh Award, for my contribution to Young People’s Activities. Over the last 5 years I have given over 30 talks on the Sun and Space Weather, at festivals and to amateur astronomy societies, teachers and other groups. These include:

- Edinburgh Science Festival, April 2001
- British Association for the Advancement of Science, Annual Festival, Sept. 2001 & Sept 2007
- Moray Science Festival, June 2001, June 2002, April 2003, April 2004
- Orkney Science Festival, September 2002
- Royal Society of Chemistry (Glasgow & West of Scotland) February 2005
- Federation of Astronomical Societies, Cambridge, October 1 2005.
- Mersey Astronomy Days, Liverpool, March 24 2009

Other outreach activity includes:

- Co-ordinating UK effort in the International Sun-Earth Days 2003
- Royal Society of Edinburgh Saturday Physics ‘Masterclasses’, 2001 – 2004
- Participation in ‘Solar Week’ online activities, 2000
- Appearance on ‘The Sky at Night’, June 5th June 2005
- While at Utrecht University I helped to establish the ‘Morgensterren’ (Morning Stars) residential course in astronomy for female senior school pupils.

Professional Affiliations

American Astronomical Society, American Geophysical Union, Royal Astronomical Society