

Curriculum Vita

Prof. Lyndsay Fletcher FRSE

Contact

Prof. Lyndsay Fletcher,
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Area of Expertise: Solar physics: solar flare observations and theory, solar activity.

Relevant Employment and Educational History

Education

10/85 - 06/89 B.Sc. Physics & Astronomy, (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
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 – 07/14 Reader in Solar Physics, University of Glasgow
08/14 – present Professor of Astrophysics, University of Glasgow

Selected Esteem indicators

1999 – Lockheed Martin Advanced Technology Center Award for Technical Excellence
2005 – Royal Society of Edinburgh Award for Contribution to Young Peoples' Activities
2011 – Royal Astronomical Society Harold Jeffreys Lecturer
2013 – NASA Group Achievement Award to the RHESSI Science Team
2017 – Elected Fellow of the Royal Society of Edinburgh (Scotland's National Academy)
2017 – 'Suffrage Science' Awardee
30 invited talks and reviews at international conferences in the last decade
President, International Astronomical Union Commission E.2 on Solar Activity (2015 - 2018)
Member, AURA Visiting Committee to the US National Solar Observatory (2012-13)
Member, International Visiting Committee to the Kiepenheuer Institute for Solar Physics (2015)

Research Interests

Solar flares: particle acceleration; observational and theoretical relationship of acceleration to coronal magnetic field restructuring; multi-wavelength flare observations; UV and EUV plasma diagnostics.
Solar image processing: Simulation of flare particle transport/acceleration. Principal supervisor of 10 graduated PhD students

Publications Summary (including 'in press')

> 100 refereed journal articles, reviews & chapters, 50 proceedings, popular articles and book reviews.

Selected Research-Related Public Service Positions

PPARC Solar System Science Advisory Panel (Sept 2004 – Aug 2007)
Daniel K. Inouye Solar Telescope Science Working Group Member (Aug 2005 -)
American Astronomical Society Hale and Harvey Prize Committee (2003 – 2006, Chair in 2006)
Secretary, European Physical Society Solar Physics Division (Sep 2005 - 2011)
Member, Editorial Board of the Journal 'Solar Physics' (2006-2016)
Chair, UK Solar Physics (2007 – 2010)
Leader, ISSI international teams on flare chromospheres (2009-2010, 2013-14)
STFC Astronomy Grants Panel, Chair of Solar Studies (2012- 2015), Panel Deputy (2017-
Royal Astronomical Society Geophysics Secretary (2011-2016), Senior Secretary (2017-)

Summary of Grant income > £10k

Sept 2001 – EPSRC/CASE studentship+costs (Co-I, £18,000)
Aug 2002 – PPARC Rolling Programme (Co-I, £512k)
Feb 2005 – PPARC/CASE studentship + additional costs (PI £50k)
March 2005 – PPARC Rolling Programme (Co-I, £781k)
October 2006 – EC Marie Curie Network (Co-I, €271k)
March 2008 – STFC Rolling Programme (Co-I, ~£1.4M)
March 2009 – Leverhulme Grant (Co-I, £143k)
Dec 2010 – EC FP7 project (Glasgow PI, €304k)
Jan 2011 – STFC Rolling Programme (PI, £1.2M)
Oct 2013 – EC FP7 Collaborative Grant, (PI & Co-ordinator, €2.2M)
Nov 2013 – STFC Consolidated Grant (PI, ~£1M)
Mar 2014 – STFC PPRP Research Grant (Glasgow PI, £42k)
Jan 2017 – STFC Consolidated Grant (PI, ~£0.9M)

Teaching Activities

Postgraduate-level National and International Summer School Teaching

PPARC/STFC Introductory and Advanced summer courses in Solar Physics, 2000, 02-09,12,14
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 - 2015 – Culham International Summer School in Plasma Physics
April 2014 – SOLARNET Spring School, Wroclaw, Poland

University Teaching

2000-2004 Head of 1st year Astronomy Laboratories
2005-2010 Head of 2nd year Astronomy
2010-2012 Head of 1st year Astronomy
2013-2015 Head of Honours & Undergraduate Masters Astronomy
Level 1 Stellar Structure and Evolution (Utrecht University, 8 hrs); Life in the Universe (10hrs);
The Sun and its Radiation (8 hrs); Observational Methods (8 hrs); Solar System Physics (6hrs), Stellar
Physics (8 hours)
Level 2 Stars and their Spectra (10 hrs), Theoretical Astrophysics (10 hours)
Level 3/4 Stellar Structure and Evolution (11 hrs); Instruments for Optical and Radio (11 hrs);
Natural and Laboratory Plasmas (11hrs), Astronomical Data Analysis (11 hours)
Postgrad. Scottish Universities Physics Alliance lectures on 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. I give several talks per year on the Sun and Space Weather, at festivals and to amateur astronomy societies, teachers, schools and other groups. These include:

- Edinburgh Science Festival, April 2001, April 2012
- British Association for the Advancement of Science, Annual Festival, Sept. 2001 & Sept 2007
- Orkney Science Festival, September 2002
- Federation of Astronomical Societies, Cambridge, October 2005.
- Mersey Astronomy Days, Liverpool, March 2009
- IOP lectures Dundee, Aberdeen (2014, 2015)

Other outreach activity includes:

- Royal Society of Edinburgh Saturday Physics ‘Masterclasses’, 2001 – 2004
- Appearance on BBC’s ‘The Sky at Night’, June 5th 2005
- ‘Morgensterren’ (Morning Stars) residential course in astronomy for female senior school pupils.

Diversity

Chair of successful bid for Institute of Physics ‘Juno Champion’ (2011, 2014), and Athena SWAN Silver (2012, 2016) status for Glasgow University School of Physics and Astronomy, recognising leadership in efforts to reduce underrepresentation of women in physics.

Professional Affiliations

American Astronomical Society, American Geophysical Union, Royal Astronomical Society, Royal Society of Edinburgh