Luke J. Shingles

Email
l.shingles@qub.ac.uk

Citizenship
Australia, Ireland

Languages
English (native), Mandarin Chinese (basic)

Address
Astrophysics Research Centre,
School of Mathematics and Physics,
Queen's University Belfast
Belfast
Antrim
BT7 1NN
United Kingdom

Research interests
Numerical computing, supernovae, nucleosynthesis, stellar physics, globular clusters

Programming languages/API experience
Fortran, Python, C, C++, Java, OpenMP

Education

Doctor of Philosophy (Astrophysics), Australian National University, 2012–2015
Thesis: 'Neutron-Capture Nucleosynthesis and the Chemical Evolution of Globular Clusters'
Department: Research School of Astronomy & Astrophysics
Supervisor: Amanda Karakas
Advisors: David Yong, Gary Da Costa, John Lattanzio (Monash), Richard Stancliffe (Bonn)

Bachelor of Science with Honours (First Class), Australian National University, 2008–2011
Majors: Astronomy & Astrophysics, Theoretical Physics, Mathematics
Thesis: 'The Sulfur Anomaly in Planetary Nebulae and Post-AGB Stars'
Department: Research School of Astronomy & Astrophysics
Supervisor: Amanda Karakas

Bachelor of Information Technology, Queensland University of Technology, 2003–2007
Major: Software Engineering

Awards and Scholarships
RSAA Alex Rodgers Travelling Scholarship, 2014
Astronomical Society of Australia Travel Assistance, 2014
RSAA Honourable Mention for Best Student Paper Prize, 2013
IAU Travel Grant for IAUS298, 2013
Australian Postgraduate Award, 2012-2015
International Year of Astronomy Honours Scholarship, 2011
RSAA Summer Research Scholarship, 2010

Talks and Poster Presentations

Contributed Talk, Supernovae: The Outliers, Garching, Germany, September 2016
Contributed Talk, RAS NAM, Nottingham, UK, July 2016
Contributed Talk, 18th Workshop on Nuclear Astrophysics, Ringberg, Germany, March 2016
Group Talk at Stars Meeting, Institute of Astronomy, Cambridge, UK, Nov 2015
Seminar, QUB, Belfast, UK, Oct 2015
Contributed Talk, ASA AGM, Perth, Australia, July 2015
Contributed Talk, ANITA Workshop, Canberra, Australia, Feb 2015
Contributed Talk, Mount Stromlo Student Christmas Seminars, Canberra, Australia, Nov 2014
Group Talk at Stars Meeting, Institute of Astronomy, Cambridge, UK, Sept 2014
Poster Presentation, Why Galaxies Care About AGB Stars, Vienna, Austria, July 2014
Contributed Talk, Nucleosynthesis in AGB Stars, Bad Honnef, Germany, July 2014
Contributed Talk, Overcoming Great Barriers in Galactic Archaeology II, Palm Cove, Australia, 2014
Group Talk at Stellar Lunch, ANU RSAA, Australia, August 2013
Poster Presentation, IAUS298 Setting the Scene for GAIA and LAMOST, Lijiang, China, May 2013
Poster Presentation, Astronomical Society of Australia Meeting, Sydney, Australia, 2012
Poster Presentation, Astronomical Society of Australia Meeting, Adelaide, Australia, 2011

Teaching Experience

ANU-ASTRO2x Exoplanets Australian National University
Jun–Sep 2015

Teaching assistant for edX online course run by Brian Schmidt and Paul Francis on exoplanet search techniques – pulsar timing, radial-velocity variations, transits, microlensing, and direct imaging with adaptive optics.

ANU-ASTRO1x Greatest Unsolved Mysteries of the Universe, Australian National University
Mar–Jun 2015

Teaching assistant for edX online course run by Brian Schmidt and Paul Francis covering the expanding universe, dark energy, dark matter, and gamma-ray bursts.

ASTR3007 From Stars to Galaxies Australian National University
Feb–Jun 2013, May–Jun 2014

Teaching assistant for the third-year course on stellar evolution & nucleosynthesis, galactic structure & dynamics, and introductory computer programming. Duties included marking assignments and answering student questions in the classroom.

PHYS1201 Physics 2 Australian National University
Jul–Nov 2012, Jul–Nov 2013

Teaching assistant for first-year course covering introductory special relativity, electromagnetism, waves & optics, and thermodynamics. Duties included marking assignments and answering student questions in the classroom.