**FULL NAME** James Matthew Wookey
**DATE OF BIRTH** 1st October 1975
**NATIONALITY** British

**CONTACT DETAILS**
School of Earth Sciences
University of Bristol
Wills Memorial Building, Queens Road
Bristol, BS8 1RJ
United Kingdom

Tel. +44 (0)117 954 5425
Fax.+44 (0)117 925 3385
j.wookey@bristol.ac.uk
http://www1.gly.bris.ac.uk/~wookey

**CURRENT POSITION**
**ERC Senior Research Fellow and Proleptic Lecturer**
School of Earth Sciences, University of Bristol
*Research in theoretical and observational seismology with an emphasis on the study of the lowermost mantle. Teaching responsibilities includes introductory computing and geophysics fieldwork.*
**September 2009 - present**

**AWARDS**
**2013 GeolSoc Wollaston Fund** (awarded to contributors to the Earth sciences on the basis of noteworthy published research, within ten years of the commencement of their research career).
**2011 RAS Fowler Prize** (awarded to individuals who have made a particularly noteworthy contribution to geophysical sciences at an early stage of their research career).
**2010 SEDI Doornbos Prize** (awarded biennially for outstanding contribution by a young scientist to Deep Earth research)
**2003 RAS Blackwell prize** (second prize) for best doctoral thesis in Geophysics, Planetary or Solar Physics in the UK.

**EMPLOYMENT**
**April 2009 - September 2009** Postdoctoral Research Associate, Department of Earth Sciences, University College, London
**November 2005 - April 2009** NERC Postdoctoral Research Fellow, University of Bristol. Research in theoretical and observational seismology with an emphasis on the study of the lowermost mantle.
**March 2002 - October 2005:** Research Assistant, then Postdoctoral Research Associate at School of Earth and Environment, University of Leeds. Research in theoretical and observational seismology, with an emphasis on seismic anisotropy and the application of modelling to data analysis.
**September 2001 - January 2002:** Placement with Shell Expro - Aberdeen, United Kingdom. Project applying forward-modelling in complex Earth-models and refining and applying new processing techniques to real and synthetic data.
**May 2001 - August 2001:** Placement with Veritas - Calgary, Canada. Project developing and applying forward-modelling techniques to test advanced seismic-processing.
**October 1998 - December 2000:** Teaching assistant/field-class demonstrator in School of Earth Sciences, teaching computing and geophysics classes to undergraduates and masters students.

**HIGHER EDUCATION**
**October 1998 - January 2003:** University of Leeds,
PhD in geophysics: *"Modelling and Interpreting Seismograms for 3D Earth Structure: A Study of Mid-Mantle Anisotropy"*
**October 1994 - June 1998:** University of Warwick
MPhys Physics; 2.1 (hons)

### Current/Previous Community Roles

**NERC Theme Action Plan** 'Volatiles, Geodynamics and Solid Earth Controls on the Habitable Planet'. (£8m, 2014 announcements of opportunity). Organiser of and contributor to the Deep Earth community effort which lead to the selection of this TAP for funding.

**NERC Peer Review College:** Member.

**IUGG Advisory Group of Young Scientists:** Committee member.

**Royal Society:** Grant review panel member (just renewed until 2015).

**Steering committee treasurer:** Mineral Physics SIG of the Mineralogical Society.

**HECToR 2 Advisory group.** Member of the HPC expert group advising NERC/EPSRC on plans for HECToR 2.

**Reviewer:** Journals including Science, EPSL, GJI, JGR, GRL, PEPI and Geophysics; and grant proposals for US NSF, NERC and the Royal Society.

**Webmaster of Mac Eye for the Geophysics Guy**. This website provides a community resource for using Apple Macs in the Earth Sciences.

### Conference roles

**Organising committee member:** Joint BGA-Min. Soc. *Post-perovskite @ 10*. Bristol, 2014.

**Session Convenor:** IAHS-IASPO-IASPEI Joint Assembly. Gothenburg, 2013

**Organising committee member:** Royal Society *Frontiers of Science*. Beijing, 2009.

**Organising committee member:** Joint BGA-Min. Soc. *New Views of the Earth's Interior*. London, 2009.

### Research expeditions led

**2008 Hudson bay.** Expedition to service and repair seismic stations on HuBLE project (NERC-funded field campaign).

**2009-2013 Morocco.** Expedition to install and service seismic stations on CoMITAC project (ERC-funded field campaign).

### Society memberships

**Royal Astronomical Society** (fellow)
**Mineral Society of Great Britain** (member)
**American Geophysical Union** (member)

### School / University roles

**School of Earth Sciences Computing Committee** (chair).

**Faculty of Science IT Committee** (member).

These two roles have allowed me to engage with a strategic University resource – computing – fundamental to my research at a time of significant shifts in the delivery of IT. I have leveraged this role to engage in assessment and planning of current and future IT needs for research, at both a school and faculty level.

**School of Earth Sciences Research Committee** (member).

This major part of this role is the ongoing preparation for REF2014. As the committee representative for the geophysics group I have engaged with my colleagues to help select outputs and contribute to impact cases and other supporting parts of the final submission. I have also my own research skills to model submission scenarios in order to inform the committee's strategy.

## Research Group

### Postdoctoral Researchers

**Dr Andy Nowacki** (2012–present).
**Dr Neil Goulding** (2012–present).
**Dr Anna Horleston** (2009–present).
**Dr Andrew Walker** (2009–2013).
**Dr Ian Bastow** (2007–2009)

## Graduate Students

Dr Andy Nowacki (NERC PhD, primary supervisor). Completed 2012.
Ms Jeanette di Leo (Marie Curie PhD, primary supervisor). Completed 2013.
Mr Jack Walpole (ERC PhD, primary supervisor). In progress.
Ms Jennifer Taylor (NERC PhD, second supervisor). In progress.
Mr Matthew Wilks (EPSRC PhD, second supervisor). In progress.

## Undergraduate Teaching

(2011–) **EASC10007: Computing for Earth Scientists** (unit director, course developer). ~65 students per session. This is a first year Earth Sciences course introducing the concepts, principles and practice of basic computing programming. The unit provides an introduction to the principles behind modern computing, and the practical element provides a solid grounding in MATLAB programming, with application to geosciences. This enables content in a range of later courses and project work. This course implements a number of innovative teaching practices, including significant online support material, use of agile software development techniques in practicals and interactive session in lectures.

(2010–2012) **EASC20034: Imaging and Mapping the Earth** (guest lecturer). ~60 students per session. Second year undergraduate unit covering applied geophysics and GIS.

(2006–2012) **EASCM0016: Frontiers in Earth Science** (guest lecturer, unit director). ~15 students per session. MSc/MSci level course with weekly guest lectures on current research topics in Earth Sciences.

(2008–2012) **EASC30029: Environmental Geoscience Fieldwork** (Co-leader). ~20 students per session. One week fieldtrip to Wales (previously Nisyros) on practical environmental geophysical surveying, with techniques including seismic refraction, EM, magnetics, EDM and gravity.

(2009–) **EASC30029: Environmental Geoscience Research Project** (Co-leader). ~5 students per session. 3rd year undergraduate project consisting of 3-4 days of (group-based) geophysical surveying, plus individual analysis, interpretation and reporting.

(2006–) **EASCM0010: Earth Science Research Project** (supervisor, co-supervisor). Final year research projects on various topics.

## Funding Profile

**NERC Follow-on Fund** (Co-investigator). Microseismic monitoring for operators and regulators (MORE). Total £95,421.

**NERC standard grant** (Bristol principle investigator, joint with Cardiff). Superplumes, superpiles or superpuddings? Understanding the thermochemical dynamics of the mantle with waveform seismology. Total £376,880.

**STFC Standard Grant** (co-investigator, joint with Imperial, Oxford, Birkbeck). Microseismometer for InSight. Total £213,521.

**NERC Directed Scoping Study** (co-investigator). Dynamic Earth Models. Total £30,609.

**2009-ERC Starting Grant** (principle investigator). CoMITAC: An integrated geoscientific study of the thermodynamics and composition of the Earth's core-mantle interface. This €1.6m grant funds my salary for 5 years, as well as 2x3 year PDRAs, 2 PhDs and a part time technician, as well as £200k of capital equipment.

**NERC Postdoctoral Fellowship** (principal investigator). An Integrated Seismic Study of the Lowermost Mantle.

**European FP7 Initial Training Network** (co-investigator; scientific training co-ordinator). Crystal2Plate.

**NERC standard grant** (co-investigator): Hudson Bay Lithospheric Experiment.

**INTAS grant** (co-investigator): Mosaic of seismic reflections from the Earth's inner core boundary.

**Royal Society Conference Grant.** American Geophysics Union Fall Meeting, San Francisco, 2004

**NERC Consortium grant** (Postdoctoral Research Position). Deep Earth Systems consortium project

**ITF Industrial Consortium** (Postdoctoral Research Position). Robust Fracture Identification project

**NERC PhD Studentship**. Modelling and Interpreting Seismograms for 3D Earth Structure

## SELECTED INVITED PRESENTATIONS

**AGU 2012** *(Invited Speaker)* December 2012, San Francisco, USA.
**IUGG.** U-12 *The Future of Geosciences*. *(Invited Speaker)*. July 2011, Melbourne, Australia.
**Structure of the Earth's Deep Interior (SEDI).** *(Invited Keynote Speaker)*. July 2010, Santa Barbara, USA.
**IRIS 2010 Workshop** *(Invited Speaker)*. June 2010, Snowbird Utah, USA.
**Royal Society UK-Indian Frontiers of Science Symposium.** *(Invited Participant)*. March 2008, Hyderabad, India.
**1st Conference of the European Mineral Sciences Initiative.** *(Invited Keynote Speaker)*. March 2007, Nice, France.
**Kyushu University.** *(Invited Seminar)*. August 2006, Fukuoka, Japan.
**Structure of the Earth's Deep Interior (SEDI).** *(Invited Speaker)*. August 2006, Prague, Czech Republic.