

Education

- 2014–2018 **Australian National University, Canberra**, *PhD*, Advisor: Dr D Rhodri Davies, Thesis title: *Plume dynamics in a heterogeneous mantle: from source to surface*.
- 2006–2010 **Macquarie University, Sydney**, *BSc in Geophysics with 1st class honours*, Advisor: Dr Craig O'Neill, Thesis title: *Effects of Thermochemical Piles and the Post-Perovskite Phase Transition on Plume Dynamics*.

Experience

Professional Appointments

- 2018-present **Carnegie Institution for Science**, *Department of Terrestrial Magnetism*, Post-doctoral Fellow.

Teaching

- 2014–2017 **PHYS3070: Physics of the Earth**, *Demonstrator*, ANU.
3rd year undergrad physics course
- 2014–2017 **EMSC1008: Physics and Chemistry of the Earth**, *Demonstrator*, ANU.
1st year undergrad Earth Science course
- 2010 **Exploration Geophysics**, *Demonstrator*, Macquarie University.
3rd year undergrad geophysics course
- 2010 **Geophysics**, *Demonstrator*, Macquarie University.
2nd year undergrad geophysics course

Student Supervision and Mentoring

- Manon Dalaison**, ANU, 2016, Honours Project.
- Katie Bell**, Imperial College London, 2015, Summer Research Project.
- Elliot Davis**, ANU, 2014, Summer Research Project.

Professional

- 2011–2013 **Geoscience Australia**, *Geophysicist*.
Pre-competitive geophysical data acquisition, processing, modelling and interpretation
- 2009–2010 **GB Geotechnics Australia**, *Geophysicist*.
Planning/conducting geophysical surveys for engineering and environmental applications, processing and interpreting data, report writing

Awards

- 2017 American Geophysical Union Honours; Studies of the Deep Earth Graduate Research Award
- 2016 Vice Chancellor's Travel Grant, ANU
- 2015 Australian Society of Exploration Geophysics Student Scholarship

Peer-Reviewed Publications

- 2 **TD Jones**, DR Davies, IH Campbell, GI Iaffaldano, G Yaxley, SC Kramer, CR Wilson. (2017) The concurrent emergence and causes of double-track volcanism on the Pacific plate *Nature*, 545, pp.472-476.
- 1 **TD Jones**, DR Davies, IH Campbell, CR Wilson, SC Kramer. (2016) Do mantle plumes preserve the heterogeneous structure of their deep-mantle source? *Earth and Planetary Science Letters*, 434, pp.10-17.

Manuscripts in preparation

- 2 **TD Jones**, DR Davies. Inferring the chemical composition of the deep mantle: a numerical investigation of plume-LLSVP dynamics
- 1 KA O'Farrell, CM Eakin, **TD Jones**, E Garcia, A Robson, T Mittal, CR Lithgow-Bertelloni, MG Jackson, V Lekic, ML Rudolph. Tracing Mantle Plumes: Quantifying their Morphology and Behaviour from Seismic Tomography

Presentations

Invited talks

- 2018 Goldschmidt Conference, Boston, USA
- 2016 Keynote, Goldschmidt Conference, Yokohama, Japan
- 2011 Elizabeth and Frederick White Conference, Australian Academy of Science, Canberra, Australia
- 2011 Geological Society of Australia, Canberra, Australia
- 2011 Australian Society of Exploration Geophysics, Canberra, Australia

Presentations

- 2015 Research School of Earth Science Student conference, *won best talk in session*
- 2014 Research School of Earth Science Student conference
- 2013 ANU 3-minute-thesis competition

Poster presentations

- 2016 CIDER Summer School, Do mantle plumes preserve the heterogeneous structure of their deep-mantle source?
- 2014 AGU Fall Meeting, Preserving deep-mantle structure in hotspot lavas

Workshops

- 2016 Cooperative Institute for Dynamic Earth Research (CIDER) - 4 week summer school
- 2014 Science Communication - ANU short course

Community Outreach

- 2014 Demonstrator at Australian National Science Week, ANU
- 2012 Demonstrator at National Youth Science Forum, Geoscience Australia
- 2012 Demonstrator at Australian National Science Week, Geoscience Australia
- 2011 Demonstrator at Australian National Science Week, Geoscience Australia

Professional Affiliations

American Geophysical Union, European Geophysical Union

Academic References

Research (geophysics) and teaching:

Dr. D. Rhodri Davies, Research Fellow, Australian National University
email: rhodri.davies@anu.edu.au, phone: +61 2 61253643

Research (geophysics) and teaching:

Dr. Giampiero Iaffaldano, Associate Professor, University of Copenhagen
email: giiia@ign.ku.dk, phone: +45 35 33 46 40

Research (geochemistry):

Dr. Ian Campbell, Professor of Geochemistry, Australian National University
email: ian.campbell@anu.edu.au, phone: +61 2 61254366