

IAN ROSE

Data scientist/geologist

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WORK

<i>Software Engineer</i>	<i>2018-present</i>	Quansight
		Contractor developing tools and integrations for data science practitioners.
<i>Postdoctoral Fellow</i>	<i>2016-present</i>	Berkeley Institute for Data Science
		Core developer for Project Jupyter. Developing JupyterLab, the next-generation frontend for Jupyter notebooks.

EDUCATION

<i>Ph.D.</i>	<i>2009-2016</i>	The University of California, Berkeley
		Earth and Planetary Science Thesis: <i>True polar wander on convecting planets</i>
<i>B.S.</i>	<i>2005-2009</i>	Yale University
		Geology and Physics

COMPUTING

<i>Languages</i>	C, C++, JavaScript, TypeScript, Python, MATLAB/Octave, SQL, bash, awk, HTML, CSS
<i>Methods</i>	Ordinary/partial differential equations, GIS analysis, visualization and mapping, Monte Carlo methods
<i>Software</i>	L ^A T _E X, git, node, Jupyter notebooks, standard *nix tools
<i>Operating systems</i>	Linux, Mac OS, Windows

SELECTED SOFTWARE PROJECTS

<i>JupyterLab</i>	Next generation front-end for Jupyter. (core developer)
<i>Interactive Earth</i>	Educational software for teaching about the physics of planetary interiors, including thermal and thermochemical convection and seismic tomography. (author)
<i>ASPECT</i>	Finite element software for mantle and lithospheric dynamics simulation. (contributor)
<i>Commuting Operation</i>	Web application for what I want out of a real-time transit arrival service. (author)
<i>BurnMan</i>	Python library for generating thermodynamic and thermoelastic models of planetary materials. (co-author)
<i>buckinghampy</i>	Educational Python module for performing dimensional analysis. (author)

PUBLICATIONS

Swanson-Hysell, N., Ramezani, J., Fairchild, L., and Rose, I. *Failed rifting and fast drifting: Midcontinent Rift development, Laurentia's rapid motion and the driver of Grenvillian orogenesis*. In Press, Geological Society of America Bulletin

Rose, I. and Buffett, B.. *Scaling for rates of true polar wander in convecting planets and moons*. Physics of the Earth and Planetary Interiors, Volume 273. 2017.

Rose, I., Buffett, B., and Heister, T. *Stability and accuracy of free surface time integration in viscous flows*. Physics of Earth and Planetary Interiors, volume 262. 2017

Cottaar, S., Heister, T., Rose, I., and Unterborn, C.. *BurnMan: A lower mantle mineral physics toolkit*. Geochemistry, Geophysics, Geosystems, 2014.

TALKS AND CONFERENCE PROCEEDINGS

Nestor, G., and Rose, I. *JupyterLab*, PyData Los Angeles, 2018

Colbert, C., and Rose, I. *JupyterLab*, JupyterCon, 2018

Colbert, C., Granger, B., and Rose, I. *JupyterLab, the next-generation Jupyter frontend*, JupyterCon, 2017

Colbert, C., Granger, B., and Rose, I. *JupyterLab + Realtime Collaboration*, PyData Seattle, 2017

Rose, I. *Interactive investigations into planetary interiors*. Talk, AGU Fall Meeting 2015

Rose, I., Buffett, B., and Heister, T. *Stable time integration of a free surface in geodynamics simulations*. Poster, AGU Fall Meeting 2015

Rose, I. *True polar wander in convecting planets*. Computational Math Seminar, Clemson University, April 2014

Cottaar, S., Heister, T., Rose, I., and Unterborn, C., *An introduction to BurnMan*. Computational Infrastructure for Geodynamics Webinar, October 2015

Rose, I., and Buffett, B.. *Continents and Earth's rotational stability*. Poster, AGU Fall Meeting 2014

Rose, I., and Buffett, B.. *Rates of true polar wander in convecting planets*. Poster, SEDI meeting 2014