

CURRICULUM VITAE

Antoine Rozel

Personal Information

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Education

2006-2010	PhD in Earth Science, Lyon1 University www and ENS Lyon www under the supervision of Pr. Y. Ricard
2004-2006	Master of science (Physics), Lyon1 University www
2001-2004	Bachelor of science (Physics), Lyon1 University

Employment history

2016-present	Oberassistent (senior teacher-researcher) ETH Zürich, Switzerland www
2013-2016	Post-doc in geophysics, ETH Zürich www
2011-2013	Post-doc in geophysics, USC/RomaTRE
2010-2011	Post-doc in geophysics, ENS Lyon

Institutional Responsibilities

IT service	in the GFD team in ETH Zürich
Equipment manager	in the GFD team in ETH Zürich
Local server management	provided to the entire Geophysics institute of ETH Zürich
planetZ	meeting co-organiser (several workshops/yr in Zürich)

Supervision

Current PhD students	J. Schierjott, D. Bolrao, K.W. Cheng
Current Master students	J. Tian, S. Beelers
Former PhD students	D.L. Lourenço, C. Jain (both now postdocs)
Former Master Students	M. Carrara, K.W. Cheng, K.W. Lim, M. Arts
Former Bachelor Students	M. Pitsch, R. Näf, T. Gerber, I. Bonati, M. Carrara, S. Beelers

Publications in International peer-reviewed journals

- In preparation (requested by the journal) **A. Rozel**, D. Lourenço, S. Mojzsis, M. Brown, The evolution of the Earth, 2020 *Nature reviews*.
- C. Jain, **A. Rozel**, P. Tackley, P. Sanan, T. Gerya, Growing primordial continental crust self-consistently in global mantle convection models, 2019 *Gondwana Research*.
- C. Jain, **A. Rozel**, P. Tackley, Quantifying the correlation between mobile continents and elevated temperatures in the subcontinental mantle, 2019 *GJI*.
- F. Wagner, A.-C. Plesa, **A. Rozel**, Calibrating mixing-length theory for thermal convection in rocky planets, 2019 *GJI*.
- F. Miozzi, G. Morard, D. Antonangeli, A.N. Clark , M. Mezouar, C. Dorn, **A. Rozel**, Fiquet G., Equation of state of SiC at extreme conditions: new insight into the interior of carbon rich exoplanets, 2018 *JGR Planets*.
- A. Khan, C. Liebske, **A. Rozel**, A. Rivoldini, F. Nimmo, J.A.D. Connolly, A.-C. Plesa and D. Giardini, A geophysical perspective on the bulk composition of Mars, 2018 *JGR Planets*.
- Dorn, C., L. Noack and **A. Rozel**, Outgassing on stagnant-lid super-Earths, 2018 *Astronomy & Astrophysics*.
- Lourenco, D.L., **A. Rozel**, T. Gerya and P.J. Tackley, Efficient cooling of rocky planets by intrusive magmatism, 2018 *Nature Geoscience*.
- Dorn, C., D.J. Bower, and **A. Rozel**, Assessing the interior structure of terrestrial exoplanets with implications for habitability, *Handbook of Exoplanets - Where Life May Arise: Habitability*, Eds. H.J. Deeg and J.A. Belmonte, 2017.
- **Rozel A.**, G. Golabek, T. Gerya, C. Jain and P.J. Tackley, Continental crust formation on early Earth controlled by intrusive magmatism, 2017 *Nature*.
- **Lourenco D.**, A. Rozel and P.J. Tackley, Melting-induced crustal production helps plate tectonics on Earth-like planets, 2016 *EPSL*.
- **Tosi N.**, C. Stein, L. Noack, C. Huettig, P. Maierova, H. Samuel, D.R. Davies, C.R. Wilson, S.C. Kramer, C. Thieulot, A. Glerum, M. Fraters, W. Spakman, A. Rozel and P. J. Tackley, A community benchmark for viscoplastic thermal convection in a 2-D square box, *GGG* 2015.
- Thielmann M., **A. Rozel**, B.J.P. Kaus and Y. Ricard, Intermediate-depth earthquake generation and shear zone formation caused by grain size reduction and shear heating, *Geology* 2015.
- **Rozel, A.**, G.J. Golabek, R. Naef and P.J. Tackley, Formation of ridges in a stable lithosphere in mantle convection models with a viscoplastic rheology, *GRL* 2015.
- **Rozel, A.**, J. Besserer, G.J. Golabek, M. Kaplan and P.J. Tackley, Self-consistent generation of single-plume state for Enceladus using non-Newtonian rheology, *JGR Planets*, 2014.
- **Rozel, A.**, Impact of grain size on the convection of terrestrial planets, *GGG*, 2012.
- **Rozel, A.**, Y. Ricard, D. Bercovici, A thermodynamically self-consistent damage equation for grainsize evolution during dynamic recrystallization, *GJI*, 2011.

→ Full list available at jupiter.ethz.ch/%7Earozel/publications.html

Teaching activity

Presently Oberassistent (senior researcher-lecturer) in ETH Zürich

- Dynamics of the mantle and lithosphere
- Finite elements methods, block course
- Gravimetry field course
- Paper discussion class
- Additional teaching with Paul Tackley

Previous teaching experience

- EGU short courses, Geodynamics 101 A & B (2018-2019)
- Helping in the planetary atmosphere class, ETH Zurich *www* (2013-2016)
- Astronomy class in elementary school, La gravière, France *www* (2016)
- Assistant lecturer, ENS Lyon *www* (2006-2011)
- Assistant lecturer, Lyon1 University *www* (2008-2009)
- Individual tutoring with Acadomia *www* (2004-2006)
- Individual tutoring, Lyon1 University *www* (2004-06)

Topics

- Bsc and Msc in physics, mathematics and informatics lectures and tutorials
- Bsc and Msc geophysics tutorials

Organization of conferences & session convener

Plate tectonics	Workshop in Locarno (2016), co-organiser, over 100 people
EGU 2017-2019	co-convener
EPSC 2017-2018	co-convener

Other activities

2009	Classical piano conservatory diploma (Lyon)
2000-present	Painting exhibitions (https://www.deviantart.com/antoinerozel)
2017-present	Japanese drumming performer (Taiko) (several concerts in Europe)