

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/%7Eaerozel/publications.html
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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)
