Dr. Leonardo Uieda

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Professional Appointments

2019 – on	Lecturer, Department of Earth, Ocean and Ecological Sciences, University of Liverpool, UK
2018 – on	Affiliate Researcher, Department of Earth Sciences, University of Hawaiʻi at Mānoa, USA
2014 – 2018	Assistant Professor, Departamento de Geologia Aplicada, UERJ, Brazil

Education

2011 - 2016	PhD in Geophysics, Observatório Nacional, Brazil
2010 – 2011	MSc in Geophysics, Observatório Nacional, Brazil
2004 - 2009	BSc in Geophysics , Universidade de São Paulo, Brazil

Grants & Fellowships

2020 - 2023	NSF-EAR: "A Sustainable Plan for the Future of the Generic Mapping Tools". PI: Wessel, P, co-PI:
	Uieda, L . <i>University of Hawaiʻi at Mānoa</i> . Award ID: 1948602.

- 2020 Software Sustainability Institute Fellowship. *University of Liverpool*. More information: software.ac.uk/about/fellows/leonardo-uieda
- 2018 2020 NSF-EAR: "The EarthScope/GMT Analysis and Visualization Toolbox". PI: Wessel, P, **co-PI**: **Uieda**, **L**, co-PI: Smith-Konter, B. *University of Hawai'i at Mānoa*. Award ID: 1829371.

Open Science

2010 – on	Fatiando a Terra www.fatiando.org
	Python tools for geophysical data processing, forward modeling, and inversion
2017 – on	PyGMT www.pygmt.org
	A Python interface for the Generic Mapping Tools
2017 – on	The Generic Mapping Tools (GMT) www.generic-mapping-tools.org
	A data processing and mapping toolbox for the Earth, Ocean, and Planetary Science
2009 – 2016	Tesseroids tesseroids.leouieda.com
	Forward modeling of gravitational fields in spherical coordinates

Academic Service

2019 – on	Topic editor, Journal of Open Source Software
2021 – on	Code of Conduct Working Group, Software Underground
2019 – on	Advisory Council, EarthArXiv

Current Teaching

2020 – on	ENVS398: Global Geophysics and Geodynamics, <i>University of Liverpool</i>
2020 – on	ENVS258: Environmental Geophysics, University of Liverpool
2020 – on	ENVS386: Geophysical Data Modelling, University of Liverpool
2020 – on	ENVS101/106: Study Skills and GIS (tutorial), University of Liverpool

2019 – on ENVS363: Geophysical Exploration Techniques (field), *University of Liverpool*

Student Supervision

2021 – on India Uppal, **PhD**, University of Liverpool, UK

2017 – 2022 Santiago R. Soler, PhD, Universidad Nacional de San Juan, Argentina

Recent Invited Talks

Uieda, L, Li, L, Soler, SR, Pesce, A. Design useful tools that do one thing well and work together: rediscovering the UNIX philosophy while building the Fatiando a Terra project, *AGU 2021*, Online.

Uieda, L, Soler, SR. Python-based workflows for small-to-medium sized data: what works, what doesn't, and what can be improved, *AGU 2021*, Online.

Uieda, L, Soler, SR, Pesce, A. Open-science for gravimetry: tools, challenges, and opportunities, *GFZ Helmholtz Centre Potsdam*, Germany.

Uieda, L, Soler, SR, Pesce, A. Fatiando a Terra: Open-source tools for geophysics, *Geophysical Society of Houston*, Houston, USA.

Uieda, L. Geophysical research powered by open-source, *various locations* (Christian Albrechts Universität zu Kiel / Departamento de Geofísica, Universidade de São Paulo / Technische Universität Bergakademie Freiberg / Geographic Data Science Lab, University of Liverpool).

Publication Highlights

- Soler, SR, **Uieda**, L. Gradient-boosted equivalent sources. *Geophysical Journal International*. doi:10.1093/gji/ggab297. github.com/compgeolab/eql-gradient-boosted
- 2020 **3 Uieda, L**, Soler, SR, Rampin, R, van Kemenade, H, Turk, M, Shapero, D, Banihirwe, A, Leeman, J. Pooch: A friend to fetch your data files. *Journal of Open Source Software*. doi:10.21105/joss.01943. **Q** github.com/fatiando/pooch
- 2019 & Wessel, P, Luis, J, **Uieda, L**, Scharroo, R, Wobbe, F, Smith, WHF, Tian, D. The Generic Mapping Tools, Version 6. *Geochemistry, Geophysics, Geosystems*. doi:10.1029/2019GC008515.
- 2018 **3 Uieda, L.** Verde: Processing and gridding spatial data using Green's functions. *Journal of Open Source Software*. doi:10.21105/joss.00957. **3** github.com/fatiando/verde
- Uieda, L, Barbosa, VCF, Braitenberg, C. Tesseroids: forward modeling gravitational fields in spherical coordinates, *Geophysics*, doi:10.1190/geo2015-0204.1.
- 2015 a Oliveira Jr, VC, Sales, DP, Barbosa, VCF, **Uieda, L**. Estimation of the total magnetization direction of approximately spherical bodies, *Nonlinear Processes in Geophysics*, doi:10.5194/npg-22-215-2015. github.com/pinga-lab/Total-magnetization-of-spherical-bodies
- Melo, FF, Barbosa, VCF, **Uieda**, **L**, Oliveira Jr, VC, Silva, JBC. Estimating the nature and the horizontal and vertical positions of 3D magnetic sources using Euler deconvolution, *Geophysics*, doi:10.1190/geo2012-0515.1.