

---

Email: [Leonardo.Uieda@liverpool.ac.uk](mailto:Leonardo.Uieda@liverpool.ac.uk) | ORCID: [0000-0001-6123-9515](https://orcid.org/0000-0001-6123-9515) | Website: [www.leouieda.com](http://www.leouieda.com)  
Jane Herdman Building, 4 Brownlow Street, Liverpool, L69 3GP, United Kingdom

## 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 Hawai‘i 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.** *University of Hawai‘i at Mānoa*. Award ID: [1948602](#).  
2020           Software Sustainability Institute Fellowship. *University of Liverpool*. More information: [software.ac.uk/about/fellows/leonardo-uieda](http://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](http://www.fatiando.org)  
Python tools for geophysical data processing, forward modeling, and inversion  
2017 – on     **PyGMT** | [www.pygmt.org](http://www.pygmt.org)  
A Python interface for the Generic Mapping Tools  
2017 – on     **The Generic Mapping Tools (GMT)** | [www.generic-mapping-tools.org](http://www.generic-mapping-tools.org)  
A data processing and mapping toolbox for the Earth, Ocean, and Planetary Science  
2009 – 2016   **Tesseroids** | [tesseroids.leouieda.com](http://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, *University of Liverpool*  
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

---

- 2021 **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.
- 2020 **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

---

- 2021 Soler, SR, **Uieda, L**. Gradient-boosted equivalent sources. *Geophysical Journal International*. doi:10.1093/gji/ggab297.  [github.com/compgeolab/eql-gradient-boosted](https://github.com/compgeolab/eql-gradient-boosted)
- 2020 @ **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.  [github.com/fatiando/pooch](https://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 @ **Uieda, L**. Verde: Processing and gridding spatial data using Green's functions. *Journal of Open Source Software*. doi:10.21105/joss.00957.  [github.com/fatiando/verde](https://github.com/fatiando/verde)
- 2017 **Uieda, L**, Barbosa, VCF. Fast non-linear gravity inversion in spherical coordinates with application to the South American Moho, *Geophysical Journal International*, doi:10.1093/gji/ggw390.  [github.com/pinga-lab/paper-moho-inversion-tesseroids](https://github.com/pinga-lab/paper-moho-inversion-tesseroids)
- 2016 **Uieda, L**, Barbosa, VCF, Braitenberg, C. Tesseroids: forward modeling gravitational fields in spherical coordinates, *Geophysics*, doi:10.1190/geo2015-0204.1.  [github.com/pinga-lab/paper-tesseroids](https://github.com/pinga-lab/paper-tesseroids)
- 2015 @ 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](https://github.com/pinga-lab/Total-magnetization-of-spherical-bodies)
- 2013 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.