

LEILA MIZRAHI

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Education

PhD in Statistical Seismology *Jul 2019-2022 (expected)*
ETH Zurich (Switzerland), Swiss Seismological Service
Visiting scholar at University of Southern California (Sep 2021-Jan 2022)
MSc in Mathematics *Feb 2014-Sep 2015*
University of Zurich (Switzerland)
Master's Thesis: "[Thoroughly Formalizing an Uncommon Construction of the Real Numbers](#)"
BSc in Mathematics *Sep 2010-Feb 2014*
University of Zurich (Switzerland)

Professional Experience

Actuary Methods & Processes (Assistant Vice President) *Mar 2019-Jun 2019*
Swiss Re Ltd., Underwriting Strategy department, Zurich, Switzerland
Underwriting Strategy Graduate (graduates@swissre program) *Sep 2017-Feb 2019*
Swiss Re Ltd., Underwriting Strategy department, Zurich, Switzerland
Modelling Intern *Feb 2016-Jan 2017*
Swiss Re Ltd., Underwriting Strategy department, Zurich, Switzerland

Other Relevant Experience

Reviewer *Jun 2021-present*
Seismological Research Letters
Earth and Planetary Science Letters
On-call Duty Seismologist *Jun 2020-present*
Swiss Seismological Service, ETH Zurich (Switzerland)
Communicate with Swiss authorities and with the public in case earthquakes in Switzerland or abroad.
Teaching Assistant *Sep 2020-present*
Department of Earth Science, ETH Zurich (Switzerland)
Statistical Data Analysis with Matlab, Geophysical Field Course on Seismic Refraction
Fieldwork *Jun 2021*
Hengill geothermal area (Iceland), Swiss Seismological Service & Reykjavik Energy
Assisted with the installation of a 500 node seismic array.
Fieldwork *Aug 2020*
Hengill geothermal area (Iceland), Swiss Seismological Service & ISOR Icelandic Geosurvey
Assisted with the installation and dismantling of broadband seismic stations, including wind turbines and solar panels.

Publications

Articles

1. **Mizrahi, L.**, Nandan, S. and Wiemer, S., 2021. Embracing Data Incompleteness for Better Earthquake Forecasting. *Journal of Geophysical Research: Solid Earth*. doi.org/10.1029/2021JB022379
2. **Mizrahi, L.**, Nandan, S. and Wiemer, S., 2021. The Effect of Declustering on the Size Distribution of Mainshocks. *Seismological Research Letters*. doi.org/10.1785/0220200231

Conference Abstracts

1. **Mizrahi, L.**, Nandan, S. and Wiemer, S., 2021. Joint resolving of the fault plane ambiguity and anisotropic earthquake triggering in Southern California. *Poster*, AGU Fall Meeting, December 13-17 2021, New Orleans
2. **Mizrahi, L.**, Nandan, S. and Wiemer, S., 2021. Towards next-generation earthquake forecasting by embracing short-term aftershock incompleteness. *Poster*, SCEC2021 Annual Meeting, September 12-17 2021, online
3. **Mizrahi, L.**, Nandan, S. and Wiemer, S., 2021. The Role of HPC in the Search of Next-Generation Earthquake Forecasting Models. *Talk*, Platform for Advanced Scientific Computing (PASC) Conference, July 5-9 2021, Geneva (Switzerland)
4. **Mizrahi, L.**, Nandan, S. and Wiemer, S., 2021. Embracing Data Incompleteness for Better Earthquake Forecasting. *Talk*, SSA Annual Meeting, April 19-23 2021, online
Receiver of 2021 Student Presentation Award
5. Nandan, S., **Mizrahi, L.** and Wiemer, S., 2021. Is Accounting for Spatial Variation of b-Values Useful for Earthquake Forecasting? *Talk*, SSA Annual Meeting, April 19-23 2021, online
6. **Mizrahi, L.**, Nandan, S. and Wiemer, S., 2020. The Effect of Declustering on the Size Distribution of Mainshocks. *Talk*, Swiss Geoscience Meeting, November 6-7 2020, online
7. **Mizrahi, L.**, Nandan, S. and Wiemer, S., 2020. How ETAS Can Leverage Modern Seismic Networks Without Renouncing Historical Data. *Poster*, EGU General Assembly, May 4-8 2020, online

Technical Skills

Sorted from most to least recently used

Python (pandas, numpy, matplotlib, scikit-learn, keras, PySpark, etc.), **Git** (GitLab, GitHub: [lmizrahi](#)), **distributed high performance computing** (using LSF workload management platform), **UNIX shell**, **LaTeX** (Overleaf), **Microsoft Excel**, **Matlab**, **JavaScript** (AngularJS), **SQL**, **MongoDB**

Languages

German (native), **English** (fluent), **French** (advanced), **Spanish** (basic), **Hebrew** (beginner)