

Julian Kühnert

ENVIRONMENTAL SEISMOLOGIST · DATA SCIENTIST

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Education

Institut de Physique du Globe de Paris (IPGP)

Paris, France

PH.D. IN GEOPHYSICS (expected date of graduation: 2019-11-27)

Oct. 2016 - present

- Research project: *Simulation of Seismic Waves generated by Rockfalls on Real Topography*

TU Delft | ETH Zurich | RWTH Aachen

Delft, Netherlands - Zurich,

Switzerland - Aachen, Germany

M.Sc. IN GEOPHYSICS (*cum laude*)

Sept. 2014 - Aug. 2016

- IDEA League Joint Master's in Applied Geophysics
- Dissertation prepared at Schlumberger in Gatwick, UK

University of Konstanz

Konstanz, Germany

B.Sc. IN PHYSICS

Oct. 2010 - Jul. 2014

- Comprising a one year study abroad at Uppsala University (2012-2013)
- Dissertation prepared at ISTerre in Grenoble, France

Research & work experience

Schlumberger

Gatwick, UK

M.Sc. DISSERTATION

Mar. 2016 - Aug. 2016

- Topic: *Joint inversion of shear-wave velocity azimuthal anisotropy from surface and body waves*
- Advisors: Daniele Boiero, Claudio Boiero and Edgar Manukyan

UNIL Lausanne

Lausanne, Switzerland

INTERNSHIP

Aug. 2015 - Sept. 2015

- Topic: *Numerical upscaling of seismic characteristics in fractured porous media*
- Advisors: Eva Caspari and Klaus Holliger

ISTerre Grenoble

Grenoble, France

B.Sc. DISSERTATION

Mar. 2014 - Jul. 2014

- Topic: *Ultrafast ultrasonic imaging of elastic properties in soft solids: Application of speckle-interferometry to quasistatic deformation*
- Advisors: Philippe Roux and Michel Campillo

Uppsala University

Uppsala, Sweden

RESEARCH PROJECT

Sept. 2012 - Jun. 2013

- Topic: *Commissioning of a collimated VUV Fourier transform spectrometer for inelastic resonance measurements*
- Advisor: Marcus Agåker

Carl Zeiss AG - Microscopy

Aalen-Oberkochen, Germany

STUDENT TRAINEE

Aug. 2010; Mar. 2011

- Quality management in the department of Electron Microscopy (SEM and TEM microscopes)

Teaching

2019 **Stresses and Elasticity**, IPGP - M.Sc. level (*in French*)

France

2016 **Experimental Physics III**, RWTH Aachen - B.Sc. level (*in German*)

Germany

2015 **Physics I**, ETH Zurich - B.Sc. level (*in German*)

Switzerland

Skills

Programming Python, Matlab, Mathematica, FORTRAN, Java, LaTeX

HPC OpenMP, MPI

Tools Jekyll, Hugo, ArcGIS, QGIS

Visualization TikZ, Matplotlib, HoloViews

Languages German, English, French, Spanish, Swedish

Grants, Workshops & Conferences

GRANTS

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|-----------|---|--------------------|
| 2018 | COST travel grant , 4th TIDES Advanced Training School | Prague, Czech Rep. |
| 2018 | COST travel grant , 8th Munich Earth Science School | Sudelfeld, Germany |
| 2014-2016 | Deutschlandstipendium , Scholarship for M.Sc. study from the German talent program | Germany |

WORKSHOPS

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|------|---|--------------------|
| 2018 | 4th TIDES Advanced Training School , Applications in natural and industrial environments | Prague, Czech Rep. |
| 2018 | 8th Munich Earth Science School , Rotational Seismology | Sudelfeld, Germany |
| 2017 | 1st EGU Galileo Conference , From process to signal – advancing environmental seismology | Ohlstadt, Germany |

CONFERENCES (TALKS)

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| 2019 | Congrès Des Doctorants , <i>Topography induced amplification of high frequency seismic waves generated by landslides: from simulation to observation at Piton de la Fournaise volcano, La Réunion</i> | Paris, France |
| 2018 | AGU Fall Meeting , <i>High frequency seismic signal generated by landslides on complex topographies: from numerical simulation to field observation at Dolomieu crater, La Réunion</i> | Washington DC, USA |
| 2018 | Congrès Des Doctorants , <i>High frequency seismic signal generated by landslides on complex topographies: from point source to spatially distributed sources</i> | Paris, France |

Extracurricular Activity

Organizing role during the *Festival des Idées* in Paris

Paris, France

ART EXHIBITION AT IPGP

2017

- Organization of an exhibition entitled: *A love for risk - how far is too far?*
- The exhibition contained artworks of researchers expressing the risks and dangers related to their scientific work.

Instructor Ski-Alpin

Germany & Austria

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- Teaching of individuals and groups
- Organization of day trips and youth camps