Education

- 2017/09-2020/12: Ph.D. thesis at Université Grenoble Alpes, Grenoble, France on "Extension of noise cross-correlation imaging methods: attenuation and anisotropy under AlpArray" with Helle Pedersen.
- 2015/09-2017/9: student at ETH Zürich, Zürich, Switzerland. M.Sc. majoring in Geophysics, Master Thesis on "Fast Resolution Analysis by Random Probing" with Prof. Andreas Fichtner.
- 2013/04-2015/09: student in Ecole Polytechnique (ParisTech), Palaiseau, France. Majoring in Continuum Mechanics with a minor in Physics (B.Sc. equivalent obtained in July 2014) M.Sc. obtained in september 2015
- 2010/09-2012/09: Attended a selective undergraduate course in sciences preparing for the competitive entrance exam to French "Grandes Ecoles" (elite science academic institutions) at Lycée Sainte-Geneviève, Versailles, France with a major in Mathematics and a minor in Physics

Work Experience

- 2021/01-current: PostDoc at LGL-TPE (Laboratoire de Géologie de Lyon Terre, Planètes et Environment), Lyon, France, on "bayesian inversion of radial anisotropy at a global scale" as part of the Transcale project with Thomas Bodin.
- **2019-2020** : Ph.D. representative at the ISTerre laboratory (Grenoble, France) and at the doctoral college of the Université Grenoble Alpes (Grenoble, France).
- 2019/01-2019/06: Teaching assistant at Université Grenoble Alpes for the INF204 class (Introduction to informatics) for civil engineering and earth sciences bachelor students
- 2016/7: Participation to a magnetotelluric measurement campaign in Mongolia for the Ph.D. Thesis of Johannes Käufl (Advisor: Alexey Kuvshinov, ETH Zürich).
- 2015/04-2015/09: Internship at the Berkeley Seismological Laboratory, Tutor Prof. Barbara Romanowicz. Work on P-wave anisotropy in the inner core using PKP-travel-time data.
- 2013-2014: Worked with "Une Grande école pourquoi pas moi", an association which brings teenagers of underprivileged areas closer to high education, as a tutor in charge of making short seances about general knowledge.
- 2012/10-2013/04: Gap year at La Main à la Pâte, a French association helping teachers in primary school in underprivileged areas to design their science courses. Work consisted in intervening in classes to assist the teacher, prepare the courses to be done with the teachers, set and maintain contact between the teachers working on the same topic and develop new documents to be used in classes

Publications

• D Soergel, H A Pedersen, L Stehly, L Margerin, A Paul, AlpArray Working Group, Coda-Q in the 2.5–20 s period band from seismic noise: application to the greater Alpine area, *Geophysical Journal International*, Volume 220, Issue 1, January 2020, Pages 202–217, https://doi-org.insu.bib.cnrs.fr/10.1093/gji/ggz443

Conferences

- 2020/11: Annual AlpArray/4DMB Meeting: Talk on "Azimuthal anisotropy of Rayleigh waves in the greater alpine area observed with beamforming on noise cross-correlations"
- **2020/05:** European Geosciences Union general assembly: Talk on "Imaging azimuthal anisotropy in the alpine crust using noise cross-correlations"
- 2019/05: European Geosciences Union general assembly: Poster on "Imaging coda-Q in the 2-10s period band using seismic noise"

Languages and computer skills

French, German: bilingual

English: C1 level

Spanish: beginner

References

Helle Pedersen

helle.pedersen@univ-grenoble-alpes.fr Université Grenoble Alpes ISTerre CS 40700 38058 GRENOBLE Cedex 9

Anne Paul

anne.paul@univ-grenoble-alpes.fr Université Grenoble Alpes ISTerre CS 40700 38058 GRENOBLE Cedex 9

Thomas Bodin

Laboratoire de Géologie de Lyon : Terre, Planète, Environnement Université Claude Bernard, Lyon1 Campus de la Doua, bâtiment Géode 2, rue Raphaël Dubois 69622 Villeurbanne Cedex France

Software: Daily use of Windows and Ubuntu

Programming: Daily use of Python and Fortran, occasional use of Matlab and OpenMPI. Basics in Java and bash. Code available on github (https://github.com/dosoe)