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The Swiss Seismological Service (SED) at the ETH Zurich is the federal agency responsible for monitoring earthquakes in Switzerland and for assessing Switzerland's seismic hazard. The SED employs a team of 70 scientists and staff. To deepen our understanding of present-day seismically active structures and their relation to geologically or geophysically mapped faults in the Central Alps and their foreland requires the high-resolution analysis of precise earthquake locations and focal-mechanisms combined with structural models of the Alpine crust. In order to address these tasks, we seek a highly motivated individual for a **PostDoctoral Researcher Position in Seismotectonics**.

Job description:

We are looking for a researcher with an interest in seismotectonic studies of the Alpine orogen including the development and application of sophisticated approaches for crustal imaging, high-precision earthquake locations as well as source and stress inversion of crustal seismicity in the Central Alpine region. The successful candidate will also improve the capabilities of the seismic network to monitor such seismicity in real-time applications and extend existing databases by additional seismotectonic information.

The primary responsibilities for the Postdoctoral Researcher are:

- High-resolution seismotectonic studies of the Central Alpine region using high-precision earthquake and focal-mechanism catalogs as well as the analysis of stress and deformation regimes.
- Development of next generation crustal models of the Central Alpine region combining various seismological datasets.
- Development and application of new techniques for improved focal mechanism and moment tensor inversion for small-magnitude seismicity.
- Improving capabilities of SED's SeisComp3 earthquake monitoring system by implementing and testing of new detection and location procedures as well as extending existing databases with seismotectonic information.

The position is initially for 24 months, with the possibility of extension, part time employment can be considered if justified. He/she will work in a highly collaborative environment, with close links also to the Alpine geology groups of the University of Bern and ETH Zurich and other partner institutions in Switzerland. The candidate will also join the team routinely monitoring Swiss seismicity. The working language of the group is English, though knowledge of German or French would be regarded positively. At the SED, we are committed to promoting flexible and family-friendly working models, and a healthy work-life balance is important to us. ETH Zurich supports a policy for diversity and inclusion and we especially encourage qualified female candidates to apply.

Your profile:

The candidate should have a PhD in geoscience or a related field with documented experience on relevant subjects, which may include source location, quantification and characterization, seismic tomography, stress inversion, crustal deformation, Alpine geology, software development for seismic networks, and data mining. A solid background in programming, preferably in Python and Fortran, is required. Experience and / or familiarity with the SeisComP3 monitoring system would be of advantage.

Interested?

We are looking forward to your online application including a CV, a statement of research interests, and the names and complete contact information of two referees. Please note that we exclusively accept complete applications submitted through our online application portal accessible through the following link (applications via email or postal services will not be considered):

https://www.jobs.ethz.ch/job/view/JOPG_ethz_nbLDgNr1CZd9cCTsv6

For further information please contact Dr. T. Diehl by [email: tobias.diehl@sed.ethz.ch](mailto:tobias.diehl@sed.ethz.ch) (no applications) and visit our website at www.seismo.ethz.ch. The selection process starts immediately (January 2021) and will continue until the position is filled (application portal closes March 31, 2021 the latest). The position is available starting March 2021.