

## **Post-Doctoral Position in Seismo-Tectonics and Space Geodesy at IPGP (Paris, France)**

The Institut de Physique du Globe de Paris has an opening for a post-doctoral position to carry out research in seismo-tectonics and space geodesy. The project is funded by the Agence Nationale de la Recherche (ANR) (PI: Martine Simoes) and aims at better assessing active deformation and seismic hazards in slowly deforming orogens, by quantifying deformation over various time-scales, from long-term geological deformation down in time to short-term processes at the scale of the seismic cycle. The Western Kunlun mountain range (China) is considered as a field case example in this project.

The post-doctoral fellow will take an active role in the characterization and quantification of deformation across this mountain range and its foreland basin (the Tarim Basin) over the time scale of the seismic cycle. The main objective of this work will be to explore the possibility of better assessing and picturing the interseismic deformation across this region, and from there to discuss the mechanical behavior of active faults. To complete this task, the post-doctoral fellow will explore and make an efficient use of the InSAR data produced by the FLATSIM service from Sentinel 1 imagery, in addition to InSAR processing if needed and appropriate. Additionally, existing GPS data at the regional level will also be made available. Based on these data, he/she will model the interseismic locking of faults and discuss the associated regional seismic hazards. The acquired knowledge on the interseismic deformation of the Western Kunlun and Southern Tarim may also be used to re-think and eventually re-analyze past recent earthquakes, and the modeling of stress transfers between faults is a possible direction of research.

He/She will take advantage of the extensive and unique compilation of geological and structural observations, and of maps of existing faults that our group has compiled at the regional scale. The candidate will benefit from various interactions and collaborations within the Tectonics group of the "Institut de Physique du Globe de Paris" (IPGP), and with the "Laboratoire de Géologie de Lyon, Terre Planètes et Environnement"(LGL-TPE) to develop his/her own line of research.

The post-doctoral fellow will present his/her scientific results in international meetings, and write scientific papers to be published in peer-reviewed international journals.

### **Duration / Salary**

This Post-Doctoral position is proposed for a minimum duration of 13 months, and possibly up to 18 months. It is expected start as early as March 2021 and at latest by Summer 2021. Net salary will depend on previous experience of the candidate, and will average ~25 k€/year.

### **Application**

The candidates should have completed a PhD degree in active tectonics, with experience in InSAR and interseismic modeling. The applicants are expected to send their curriculum and a brief summary of their past research experience and scientific results to Martine Simoes (simoes@ipgp.fr). The names and contact information of two (or more) referees will also be provided.

Applications are open and will be considered upon reception as long as the position is vacant.

For further information on the position and/or on the project:

Martine Simoes : simoes@ipgp.fr - (+33)(0)1 83 95 76 26