

## TIDES COST-ES1401 Workshop Announcement for Working Groups 2 & 5

### **Seismic Monitoring of a Volcano: Turrialba (Costa Rica)**

March 05-09, 2018  
Instituto Dom Luiz, Univ. of Lisbon  
Lisbon, Portugal

**Description:** It can be expected that pre-eruptive changes in fluid content or stress could lead to changes in the seismic character of a volcanic edifice. With this expectation in mind we will both process and analyse seismic data from Turrialba volcano (Costa Rica) and focus on a large eruption which occurred in April 2016 (day 91) with ongoing activity until October 2016 (day 304) from when on only passive eruptions happened. We also have data from calm periods to analyse the long-term variability. The main research question is whether we can detect seismic structural changes related to the first and later eruptions. The work will include: a search for structure variations before eruption, seismic velocity changes and their frequency dependence, comparison/performance of different methods, the determination of error bounds and limitations of our methods, etc.. In principle we will focus on ambient noise-based methods, although other approaches are welcomed. Participants should bring their laptop and processing tools. In addition, we may have access to a local compute cluster. Note, the data set in the work has not been used for this task before, hence we will process and analyse the data for the first time. Hence we will face (and solve together) ‘real-world’ challenges since we are not re-processing data with a guaranteed result. There will be no lectures and it is expected that the participants have enough experiences to actively participate and contribute to this venture. This workshop should present a great opportunity to learn from each others’ experiences and approaches through working on the same problems with the same data in the same room. The workshop is hosted by the Instituto Dom Luiz in the University of Lisbon and scheduled for March 5 to 9, 2018.

**Application:** This workshop welcomes PhD students, postdocs and senior researchers from all TIDES COST-ES1401 participating countries. The meeting is limited to a maximum of 20 attendees. Applications should contain following information: (1) name, position (PhD student, postdoc, ...), work address, (2) a short (< 100 words) motivation demonstrating your experience or how you can contribute to the workshop, (3) whether you would need full/partial/no financial support. Travel expenses for full support are limited to 300 Eur; inform us if you feel that you need more money to cover your flight. (Accommodation will likely be in a University guest house and will be confirmed later.) Please, send your application to [schimmel@ictja.csic.es](mailto:schimmel@ictja.csic.es). Admittance is on a first come first serve basis for candidates with appropriate experience, i.e., the application is open until we reach the maximum number of attendees.

**Conveners** (alphabetic order): Chris Bean (Dublin), Celine Hadziioannou (Hamburg), Andrea Morelli (Bologna), Martin Schimmel (Barcelona), Graça Silveira (Lisbon)