EGO European Gravitational Observatory
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Postdoc Fellowship: Suspension Control at the European Gravitational Observatory site of the Gravitational Wave Detector VIRGO

Context
A two-year postdoc fellowship is available at EGO to work on the commissioning of Virgo. Virgo is a gravitational wave detector aiming at the detection of gravitational waves generated by galactic and extra-galactic astrophysical sources. The detector is based on a laser interferometer with arms 3 km long. The interferometer is located at EGO near Pisa (Italy) and it is currently going through its commissioning phase.

Assignment
The fellow will participate to the commissioning of the interferometer within the general goal of reaching the interferometer design sensitivity and operate the interferometer for long scientific runs. In particular the work will consist in the development and implementation of the mirror suspensions controls and in the study and reduction of the noise related to these controls. The fellow will also develop automatic procedures to allow the operator team and in general non-expert people, to operate, monitor and diagnostic the suspensions control system. The work includes different kind of activities: control system modeling, experimental measurements, implementation of the developed algorithms in the real-time control system and analysis of the achieved performances. The fellow will work within the commissioning group. Within this group he/she will also participate to the preparation of the data taking periods and to the detailed analysis of the suspension control system performances during these periods.

Background
Control systems, electronics, mechanics and interferometry. A background in the field of gravitational wave detection with laser interferometers and in particular on subjects such as mirror suspension systems, suspended cavities control and interferometer noise hunting, will be appreciated. A PhD thesis in fields related to the above mentioned subjects would be a title of merit. Fluency in the English language will be considered an essential qualification.

Application
Interested candidates are welcome to send their CVs using the EGO Application Form, to be found at http://www.ego-gw.it/job/Employment_App_Form.doc to jobs@ego-gw.it as soon as possible quoting the reference number of this vacancy notice.