



OPEN POST-DOC POSITION

duration – 1 year –

Sujet : Ultrasonic Non-Destructive testing of Concrete

Location: Risk and Environmental geophysics – ISTerre, Grenoble, France

Supervisor: Eric LAROSE, eric.larose@univ-grenoble-alpes.fr

Context

LOCADIFF is an ultrasonic imaging technique that relies on the use of ultrasonic diffuse coda waves to image and monitor damage and cracks in concrete, together with the evolution of the state of stress. In order to further develop the LOCADIFF technology, and applications in industrial contexts, ISTerre seeks a candidate for a one year Post-Doc contract. The goal will be to finalize software solutions (robustness and effectiveness) and develop new tools to take into account complex geometries of the materials at test (versatility).

Targeted industrial applications: on site monitoring and evaluation of high added-value concrete structures (civil engineering), including nuclear reactor confinement walls. The work does not include any exposition to any radiation; the experimental work will be conducted in small-scale replica on industrial structures.

The job will take place in the context of the forthcoming creation of a start-up, with possible employment as scientist manager on the middle term.

Requested skills:

Candidates will be young doctors specialized in ultrasonic imaging and/or imaging and inverse problems and/or physics of waves in heterogeneous (multiple scattering) media. Excellent skills in computation and coding (matlab and/or python) are mandatory.