

Allegato A PROGETTO Scienza senza Frontiere – Brasile

Name of the doctoral program

Mathematics For Engineering Sciences

Cotutelle X

Title of the research activity

Nonequilibrium statistical mechanics: applications in science and technology

Short description of the research activity

The research activity concerns the theory of non-equilibrium physical phenomena, which is currently under intense investigation both for its conceptual interest, as well as for its widespread applicability to most diverse problems. In particular PhD thesis may be supervised to address problems of biological, medical and generally nano-technological interest, such as: 1) transport in nano-structured materials (quantum or classical), which typically leads to anomalous phenomena; 2) fluctuation theorems and applications to nanodevices and to the detection of gravitational waves; 3) networks and decimations techniques.

Scientific responsible (name, surname, role)

Lamberto Rondoni (professor); <http://calvino.polito.it/~rondoni/>

E-mail: lamberto.rondoni@polito.it

Number of vacancies for XXVIII cycle (begin January 2013)

2

Specific requirements (experiences, skills)

Website of the research group (if any)

<http://calvino.polito.it/fismat/poli>

<http://www.rarenoise.lnl.infn.it/>