1-year PostDoc position available

Stochastic resonance and stochastic differential equations with time-periodic coefficients

Laboratory : Institut de Mathématiques de Bourgogne, Dijon, France

Research program: The stochastic resonance phenomenon sometimes appears when dynamical systems are perturbed by noise. In particular an external periodic force applied together with some noise to a bistable system can lead to surprising new effects like for instance a periodic switching between the meta-stable states.

Research will be focused on the study of stochastic differential equations with periodic coefficients (large time behaviour, exit problem, large deviations principles,…) or on the study of interacting particle systems in a time periodic environment (McKean-Vlasov type equations, propagation of chaos, large time behaviour…)

Context:
The research work will be done at the IMB center. The duration of this post-doctoral position is scheduled for 12 months with a starting in October 2012. The net salary is 1940€/month.

Required skills:
Applicants are expected to have graduated with a Ph.D. by the recruitment date (PhD or equivalent doctoral program). Applicants who have graduated before September 2007 are not eligible.
Good knowledges in stochastic analysis. Programming skills (C, C++ or Matlab).
The application should include the following information :
- CV
- Statement of research interests
- List of publications

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