



ENS Rennes
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Post-doc position at the ENS Rennes

Funded by the ANR project ADA, a 12-month postdoctoral position is available at the ENS Rennes, part of the “Institute de Recherche Mathématique de Rennes” (IRMAR). The ANR ADA project deals with the theory of diffusion-approximation (see for example the book [1] in the finite dimension case) in infinite dimension and convergence of PDEs. The first work in this field [2] shows how to move from a kinetic equation containing an interaction term and a small parameter, with random terms whose correlation length tends to zero, to a stochastic heat equation. The aim of this ANR project is to extend this kind of studies to more complex cases: Boltzmann to stochastic Navier-Stokes or dispersive equations for example. The project also includes a numerical part aiming at developing efficient numerical methods in this framework.

The candidate should have a solid background in PDE, in the study of stochastic processes or in numerical analysis. Candidates with double or triple competence will be favoured.

The post-doc will start between September 1 and November 1, 2021.

Applications, including a cv with a list of publications, a letter of motivation, and a description (2 pages max) of the research activities, as well as the names of two scientific references, must be sent, by March 15, 2021 at the latest, to:

Arnaud Debussche (arnaud.debussche@ens-rennes.fr)

Note that a similar position will be available in the fall of 2022 at ENS Lyon, in the UMPA laboratory.

References :

[1] J.P.Fouque, J.Garnier, G.Papanicolaou and K.Solna, *Wave Propagation and Time Reversal in Randomly Layered Media*, Stochastic Modelling and Applied Probability, Springer, 2010.

[2] A. Debussche and J. Vovelle, Diffusion limit for a stochastic kinetic problem, *Commun. Pure Appl. Anal.* **11**(6) (2012), 2305–2326.

Monthly net salary : 2011.12€