



Warwick Mathematics Research Centre

EAST MIDLANDS STOCHASTIC ANALYSIS SEMINAR WEDNESDAY 29TH OCTOBER 2008

Organisers: Zdzislaw Brzezniak (York), K.D.Elworthy (Warwick),
Xue-Mei Li (Warwick), Huaizhong Zhao (Loughborough)

Supported by the London Mathematical Society

All talks in Room B3.02 Mathematics Institute, Zeeman Building

- 14:00 **M. Arnaudon** (Poitiers) *Horizontal diffusions in the space of C^1 paths in a manifold*
I will speak about infinitesimal parallel coupling of a large number of diffusion processes in a manifold, which to the limit yields some kind of intrinsic diffusion in the space of C^1 paths. Then I will speak about applications, as estimating the Wasserstein distance of two probability measures evolving under the heat flow.
- 15:00 Tea
- 15:30 **Natesh Pillai** (Warwick Stats) *A result on Levy Random measures*
We will introduce Levy random measures -- a rich class of random measures derived from the classical infinitely divisible processes. After explaining the motivation behind studying them, we will construct random fields using Levy random measures. Finally we present a result about Levy random fields.
- 16:30 **Arnaud de La Pradelle** (Paris) *An alternative approach to integrals along rough paths*
There is a simple lemma which leads to a nice definition of an integral along an irregular curve. We will have a look to the Euler scheme for solving an O.D.E. driven by an α -holder curve with $\alpha > 1/3$. This particular case coincides with the corresponding rough paths of T.Lyons, who is the initiator of this kind of problems.

We shall leave for lunch, at EAT in the Art's Centre, from the Mathematics Institute Common Room at 12.30, and in the evening will go to a pub/restraurant. All are welcome.

For more details or accommodation arrangements please contact
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