

SEMINAIRE DE PROBABILITES

Mardi 27 juin 2006 à 16h15

Salle MA 12, 1^{er} étage, Bâtiment MA, EPFL, Ecublens

Prof. Carl MUELLER

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présentera une conférence intitulée

The speed of a random travelling wave

Résumé: We describe work in progress with Leonid Mytnik and Jeremy Quastel. The KPP equation is a standard model for the study of traveling waves. A large class of initial conditions yield solutions which converge to a limiting shape, which moves with constant velocity. Adding noise to the equation may give a stationary ensemble of shapes, with an average speed which is different than the speed of the deterministic wave. Brunet and Derrida have conjectured some surprising results about the speed of the wave in the random case, when the noise is small. Conlon and Doering have given an inequality which verifies half of the conjecture. We describe an approach which proves the other half of the conjecture, and may improve the result of Conlon and Doering.

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