PROBABILITY
AND
MATHEMATICAL STATISTICS
Vol. 19, Fasc. 1 (1999), pp. 55–62

UNICITÉ TRAJECTORIELLE DES ÉQUATIONS DIFFÉRENTIELLES STOCHASTIQUES AVEC TEMPS LOCAL

Youssef Ouknine

Abstract: We study the pathwise uniqueness of a one-dimensional stochastic differential equation driven by white noise and involving local time of the unknown process. We introduce a very weak condition on the diffusion term which is sufficient for the pathwise uniqueness if one considers an equation of the form

$$X_t = x_0 + \int_0^t \int_E \sigma(s, x, X_s) W(ds, dx) + \int_{\mathbf{R}} L_t^a(X) \nu(da),$$

where ν stands for a signed Radon measure on $\mathbf{R}$.

2000 AMS Mathematics Subject Classification: Primary: -; Secondary: -;

Key words and phrases: -