

Pathwise stochastic control and a class of stochastic partial differential equations

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Talk Abstract

We consider a class of control problems where we study the minimization of cost in the pathwise sense. We derive the associated Bellman's dynamical programming principle in the pathwise sense and show that the corresponding Hamilton-Jacobi-Bellman equation is well-posed in the class of stochastic viscosity solutions. Moreover, we give a characterization of the drift of the control problem. This is an ongoing work.

Keywords: stochastic control, pathwise, viscosity solutions.