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Some recent progress on stochastic HJB equations

In this talk, we shall present some recent progress in the study of stochastic Hamilton-Jacobi-Bellman (HJB) equations, which arise naturally in the context of non-Markovian control problems, particularly within the field of mathematical finance. The non-Markovian nature of these problems may also involve path dependence or mean-field interactions, in addition to general randomness in the coefficients. The discussion will cover various aspects, including the well-posedness of such stochastic HJB equations, numerical approximations, and their applications.