

Rafael SERRANO

University of York

« Existence of optimal relaxed controls for stochastic evolution equations in Banach spaces »

Abstract:

We prove existence of an optimal relaxed control for a class of semilinear stochastic PDEs on UMD type-2 Banach spaces perturbed by multiplicative noise and driven by a cylindrical Wiener process. The main tools of our study are the factorization method for stochastic convolutions in UMD type-2 Banach spaces and certain compactness properties of the factorization operator and of the class of Young measures on Suslin metrizable control sets.