

Numerical approximation of stochastic evolution PDEs

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I will review our work on numerical approximation of stochastic evolution PDEs driven by noise. The equations are discretized in space by a standard finite element method and Euler's method in time. Our work includes the stochastic heat equation, wave equation and Cahn-Hilliard equation. The equations are set in an abstract framework based on operator semigroups in Hilbert space. We show strong and weak convergence of the numerical approximations.