ATENEO

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Integral transform numerical methods for partial differential models with a finite degree of randomness

Abstract: In this talk we discuss how to construct manageable numerical solutions of random partial differential models with a finite degree of randomness allowing the computation of the expectation and variance of the approximating stochastic process solution. The construction of the numerical solution is performed by means of a combination of a random integral transform, the use of Montecarlo method and numerical integration quadrature. Numerical convergence throughout simulations is simulated with illustrative examples.

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