Seminar/Talk

Stochastic differential equations with irregular coefficients: mind the gap!

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Random phenomena often appear in dynamical systems that we aim to analyse and to control. Mathematics serves to describe these random dynamical systems by stochastic differential equations (SDEs). In many cases the coefficients of these SDEs lack regularity properties that are assumed in the classical literature on numerical methods for SDEs. For example, when solving stochastic control problems by simulation one has to take into account that the control might depend on the controlled process in a discontinuous manner.Motivated by this problem we study existence, uniqueness, and strong convergence rates of numerical methods for certain SDEs with non-globally Lipschitz coefficients.

Wednesday, June 8, 2022 05:45pm - 07:00pm
Heinzel Seminar Room (I21.EG.101), Office Building West

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