Kolloquium

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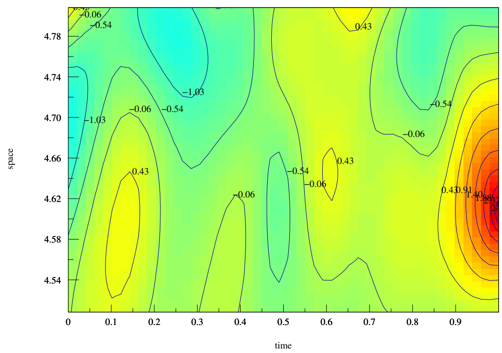
Two numerical methods for solving Backward SDEs: Dynamic programming equation and Picard's iterations



We present in this talk two numerical methods for solving Markovian Backward SDEs. The first one is based on a time discretization. We study the error induced by this discretization and give an explicit error expansion with respect to the error due to the discretization of the forward process. The second method is based on Picard's iteration and a variance reduction technique to solve the associated semi-linear PDE. Its convergence is geometric.

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