

# OVERCOMING THE CURSE OF DIMENSIONALITY IN THE NUMERICAL APPROXIMATION OF BSDEs

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Backward stochastic differential equations (BSDEs) in applications are often nonlinear and high-dimensional. In nearly all cases such nonlinear high-dimensional BSDEs cannot be solved explicitly and it has been and still is a very active topic of research to design and analyze numerical approximation methods to approximatively solve nonlinear high-dimensional BSDEs. In this talk we show how to overcome the curse of dimensionality by introducing a new Monte Carlo-type numerical approximation method for high-dimensional BSDEs and by proving that this Monte Carlo-type numerical approximation method does indeed overcome the curse of dimensionality in the approximative computation of solution paths of BSDEs.