Numerical valuation of Bermudan basket options via partial differential equations

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This talk deals with numerical methods to approximate the fair values of European and Bermudan basket options, which constitute common products in the financial markets. If there are $d \geq 2$ assets in the basket, then the fair value of such a financial option satisfies a time-dependent d-dimensional partial differential equation. For its efficient numerical solution, we discuss in this talk a useful dimension reduction technique and numerically investigate its convergence behaviour by ample experiments.