

DMV-Jahrestagung 2006



## Minisymposium 5 - Finanznumerik (Computational Finance)

## **Pricing American Options using Quadrature**

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An efficient numerical method for pricing American-style options is presented. Starting from a discounted expectation approach we develop a flexible algorithm for option pricing. The computational complexity of the method is analyzed and error bounds are given. Adaptive quadrature and adaptive interpolation techniques allow to control accuracy. The resulting algorithm can be applied to fairly arbitrary market models and option types without considerable modifications. We present numerical results for several types of options under Lévy processes as example.