



---

## Minisymposium 5 - Finanznumerik (Computational Finance)

### Fast and Reliable Pricing of American Options With Local Volatility

RALF FORSTER, KARIN MAUTNER (FU BERLIN)

We consider the parabolic obstacle problem with variable coefficients appearing in the Black-Scholes equations with local volatility when evaluating American put options in mathematical finance. By suitable transformations we symmetrize the discretized problem to solve it by multigrid methods. Real-life data were used for the parameters and adapted carefully to the transformed problem. Finally we present numerical results to underline the convenience of this method within this setting.