POSTER

Pricing American options in Heston-type models

Giulia TERENZI
Université Paris-Est Marne la Vallée,
Università di Roma Tor Vergata

Abstract

We give an analytical characterization of the price of an American option in the Heston model. Our approach is based on variational inequalities and extends recent results of Daskalopoulos and Feehan (2011). First, we study the existence and uniqueness of a weak solution of the associated degenerate parabolic obstacle problem. Then, we prove estimates on the joint law of the log-price process and the volatility process and we deduce from them the probabilistic interpretation.

Keywords. American options; degenerate parabolic obstacle problem; optimal stopping problem.

References