1035-65-545 **Stephane Villeneuve*** (villeneuve@pstat.ucsb.edu) and **Antonino Zanette**. *On a second order numerical scheme for computing exercise regions of American lookback options.* Preliminary report.

The paper is devoted to the numerical solution of the free boundary problem that is derived from the Black-Scholes analysis of the American lookback option pricing. For practical purposes, one needs to implement accurate numerical schemes in order to get a good approximation of the hedging portfolio. In this paper, we introduce a second order scheme that pays attention to the boundary condition and discuss its accuracy by comparing it with standard methods. (Received September 10, 2007)