1145-65-360     **Jiacheng Cai*** (`jxcai@salisbury.edu`) and **Hongtao Yang** (`hongtao.yang@unlv.edu`). *A Finite Volume - Alternating Direction Implicit Method for the Valuation of American Options under the Heston Model.*

A finite volume - alternating direction implicit method is proposed for numerical valuation of the American options under the Heston model. It is based on decoupling correlated stock price process and volatility process so that corresponding partial differential operator does not contain the mixed partial derivative term. Hence the proposed method is numerically simple and fast. Numerical results are presented to examine the accuracy of the proposed method and to compare it with the others. (Received September 06, 2018)