

1145-60-682

Duy Nguyen*, 3399 North Road, Poughkeepsie, NY 12601. *Optimal trading rules in a partial observable market.*

This work provides an optimal trading rule that allows buying and selling of an asset sequentially over time in a partial observable market. The asset price follows a Markovian regime switching geometric Brownian motion model. The objective is to determine a sequence of trading times to maximize an overall return. The corresponding value functions are characterized by a set of quasi variational inequalities. A solution is obtained under suitable conditions. The sequence of trading times can be given in terms of a set of threshold levels. Finally, numerical examples are given to demonstrate the results (Received September 12, 2018)