Optimal consumption and investment with bounded downside risk measures for logarithmic utility functions

Pergamenshchikov, S. (University of Rouen)

We investigate optimal consumption problems for a Black-Scholes market under uniform restrictions on Value-at-Risk and Expected Shortfall for logarithmic utility functions. Using optimization methods in Hilbert functional spaces, we find all optimal solutions in explicit form. It turns out that the optimal constrained strategies are the unconstrained ones multiplied by some coefficient which is less then one and depends on the specific constraints.