1163-60-1484 **Serges Love Teutu Talla*** (seteu1@morgan.edu), 1700 East Cold Spring Lane, Baltimore, MD 21251, and **Isabelle Kemajou-Brown** (elisabeth.brown@morgan.edu), 1700 East Cold Spring Lane, Baltimore, MD 21251. *Computation of a risk-sensitive optimal portfolio problem with Regime switching.* Preliminary report.

In this work, we consider a risk-sensitive stochastic maximum principle problem in the financial market, motivated by a space-time Poisson process: Markov regime-switching. Applying this principle under some optimal conditions, we assume the wealth dynamic follows a stochastic differential equation, and use the Forward-Backward Stochastic Differential Equation (FBSDE) method to obtain the first and second adjoint variables, and to compute the Hamiltonian of our system. Using the Python programming language, we find some computational results to illustrate our approach. (Received September 15, 2020)