Particle swarm optimization approach to portfolio fuzzy optimization

Nastaran Najkar, ns.najkar@gmail.com[1] Corresponding Author

Mohammad Reza Kohansal, kohansal@ferdowsi.um.ac.ir[2]

[1]Ph. D. student of Agricultural Economic , Campus of Ferdowsi University of Mashhad

[2]Associate professor of Agricultural Economic department, Ferdowsi University of mashhad

Abstract

This paper considers a heuristic method for solving portfolio selection problem based on the possibility theory, therefore, a particle swarm optimization is proposed to solve the corresponding optimization problem. Random fuzzy portfolio optimization are formulated as nonlinear programming. An example, which utilizes the data from Tehran exchange corporation, illustrate the whole idea on fuzzy portfolio optimization problem.

Keywords: *Portfolio optimization, possibility theory, particle swam optimization*