RESEARCH ON POSSIBILISTIC RISK
POSTDOCTORAL RESEARCH PROJECT
2010-2012

Project Code  PD 651
Project Manager: Teaching assistant PhD. Irina Georgescu

Description of the project: Possibility theory initiated by L. A. Zadeh in 1978 is an alternative to probability theory. It is applied in modelling those uncertain situations for which there is no big volume of data. This project aims a treatment of risk theory by methods of possibility theory. The goals of the project are: (a) to define and study some possibilistic indicators adequate for risk problems; (b) to investigate some important themes of risk theory (risk aversion, risk evaluation, comparison of risk situations, etc.) by possibilistic indicators; (c) to apply possibilistic models to risk management. We will investigate possibilistic versions of classic results of probabilistic risk theory: theorems of Pratt, Ross, Rothschild and Stiglitz, etc.

Objectives for 2010:
1. The study of indicators of possibilistic distributions
2. The study of possibilistic risk aversion

Publications in 2010

Objectives for 2011:

1. A thoroughgoing study of possibilistic risk theory
2. Management of possibilistic risk

Publications in 2011:


[10] I. Georgescu, Fuzzy dominances and their indicators, accepted to SPECIAL ISSUE: From Natural Computing to Self-organizing Intelligent
Complex Systems

Journal of Information Technology Research (JITR), 2012

**Objectives for 2012:**

1. A thoroughgoing study of possibilistic risk theory
2. Management of possibilistic risk

**Publications in 2012:**


5. I. Georgescu, J. Kinnunen, **A risk approach by credibility theory**, submitted to Fuzzy Information and Engineering


7. I. Georgescu, **Possibilistic models of risk management**, submitted to The Iranian Journal of Fuzzy Systems
