

PhD research topic proposal
BME, Doctoral School of Mathematics and Computer Science

Name of supervisor :

Miklós Pintér

Degree:

PhD

Title of the topic:

Selected topics in Game Theory

Short description:

It is common in the literature of mathematical game theory that mixed actions are described by probability measures. So far there are only few results on what happens (how the main results of the field change) if we use probability charges instead of probability measures. The goal of the proposed research is to conduct a throughout analysis of the above mentioned problem in the case of Markov Decision Problems and Stochastic Games.

In cooperative game theory various characterizations of solutions are considered. The characterizations vary from subclass to subclass, and even more, from ordinary TU-games to various generalizations of TU-games (e.g. Graph Games). The goal of the proposed project is to analyze the known characterizations or to introduce new ones on subclasses of known or new types of cooperative games.

Requirements:

MSc in Mathematics

Contact:

Phone:

E-mail:

pinter@math.bme.hu

Place of work:

BME, Department of Differential Equations

Statement: *The conditions of the research above are satisfied, the theme is confirmed by the Head of the Department/Institute*