

Mean Field Games: An Introduction

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Abstract

This series of introductory lectures will cover basic ideas, concepts, and results of mean-field-games (MFGs), through simple examples. Discussions include the existence and (non)-uniqueness of MFG solutions, the convergence from the MFG to its associated N-players stochastic game and their complex relations. Time permitting, some new machine learning techniques for analyzing MFGs will be presented.

The lectures will be mostly self-contained.