

Jérôme Renault - Equilibria of games with algorithms

Game theory studies strategic interactions between players, which can be humans, algorithms, firms or animals. The ANITI game theory chair investigates possible applications of game theory concepts and methods to AI, as well as the consequences of the massive presence of AI in human interactions. Thematics include: interactions between algorithms, hybrid games between algorithms and rational agents, bandits and online learning, decisions and use of information in complex strategic environments, computation of equilibria in min-max problems, zero-order global Lipschitz optimization... An overview of the chair will be presented with focuses on some works, in particular on games played by multiplicative weights algorithms, and on convergence of optimistic gradient descent-ascents.

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