

# Rectangularity and duality of distributionally robust Markov decision processes

*lundi 28 juillet 2025 17:40 (25 minutes)*

The main goal of this talk is to discuss several approaches to formulation of distributionally robust counterparts of Markov decision processes, where the transition kernels are not specified exactly but rather are assumed to be elements of the corresponding ambiguity sets. The intent is to clarify some connections between the game and static formulations of distributionally robust MDPs, and delineate the role of rectangularity associated with ambiguity sets in determining these connections. As some applications, implications on the strong duality, existence of nonrandomized optimal policies, and new ambiguity set for the static formulation will be discussed.

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**Classification de Session:** Mini-symposium

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