

Diffusion control ranking games

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In this talk we will consider stochastic differential games where each player can control the diffusion intensity of an individual dynamic state process, and the rewards of the players depend on the rank of the states. A particular focus is to explore the limits up to which explicit solutions can be obtained, and beyond which numerical methods are unavoidable. In particular, we provide examples of two-player games and mean-field games for which closed form equilibria can be determined. The talk is based on joint work with Nabil Kazi-Tani, Julian Wendt and Chao Zhou.