ID de Contribution: **49**   Type: **Non spécifié**

Active particle systems through the lens of piecewise deterministic Markov processes

vendredi 22 septembre 2023 10:00 (30 minutes)

Run-and-tumble particles are a paradigmatic model in out-of-equilibrium physics that exhibits interesting phenomena not found in their passive counterparts such as motility-induced phase separation. I will present the long-time behavior of a pair of such particles with hard-core interactions on a unidimensional torus and on a line by casting them as a piecewise deterministic Markov process. I will discuss the non-equilibrium steady states of theses systems and the universality classes they pertain to as well as the speed of convergence towards the invariant measures.

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Classification de Session: Result Communication