

# On the convergence of Monte Carlo methods for Boltzmann models

*Wednesday, 11 February 2026 10:15 (25 minutes)*

In the talk I will review stochastic particle approximations of Boltzmann-like equations and present a novel quantitative error analysis. The convergence result is based on a coupling tailored for the collisional dynamics and on Wasserstein concentration inequalities. I will also discuss possible extension to binary Monte Carlo methods for mean-field models. Joint work with Lorenzo Pareschi.

**Presenter:** BORGHI, Giacomo (Heriot-Watt University)