



**UNIVERSITÀ
DI PARMA**

DIPARTIMENTO DI SCIENZE MATEMATICHE, FISICHE E INFORMATICHE

<http://smfi.unipr.it>

Seminari di Fisica Matematica

Prof. **Mattia Zanella** (University of Pavia)

Mercoledì 24 aprile 2024 ore 11:00

Aula F, Plesso di Matematica

Trends to equilibrium for kinetic models in swarm manufacturing

Abstract: We study equilibration rates for nonlocal Fokker-Planck equations arising in swarm manufacturing. The PDEs of interest possess a time-dependent nonlocal diffusion coefficient and a nonlocal drift, modeling the interaction of a large system of agents. The emerging steady profile is characterized by a uniform spreading over a portion of the domain. The result follows by combining entropy methods for quantifying the decay of the solution towards its quasi-stationary distribution with the properties of the quasi-stationary profile.

Organizzatori: Andrea Bondesan, Maria Groppi



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