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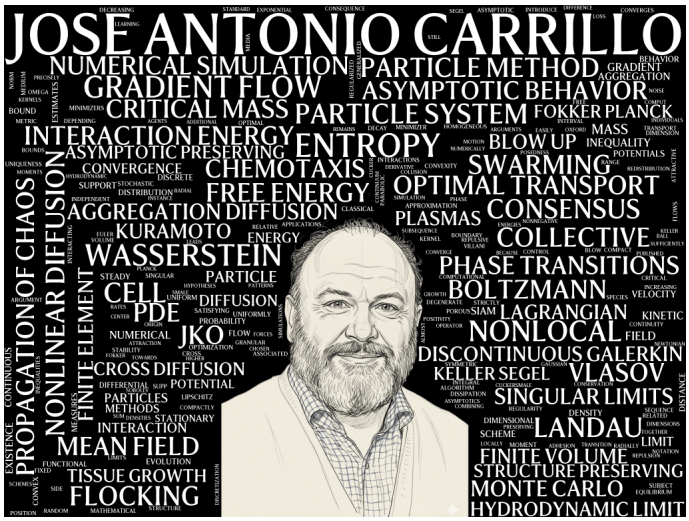

Lecture

and a Mini-Course of our LFUI guest professor

José Antonio Carrillo
(University of Oxford)

"Kinetic equations for plasma physics in a nutshell"

Kinetic equations are ubiquitous nowadays for describing ensembles of large interacting particle systems. They describe the evolution of the probability density in phase space of particles leading to the evolution of all important macroscopic quantities: density, mean velocity and temperature. I will discuss several aspects of some selected models of interest in plasma physics such as Vlasov-like equations, Landau like equations and Boltzmann like equations. I will focus on modelling issues, mathematical properties of their solutions, and several numerical approaches proposed in the literature.

Guests are very welcome!

Monday, April 20th 2026, 13:15-14:15	HSB 5 (general introduction)
Thursday, April 23rd 2026, 13:45-14:45	HSB 5 (further elaboration)
Friday, April 24th 2026, 10:15-11:15	HS D (further elaboration)

(https://carrilloja.org/)