

## INVITATION

### IKTrace Seminar (IMAT–CCM)

Coffee, discussion, and academic exchange

#### THIRD SEMINAR TALK

## From particles to cells: kinetic modeling of living complexity

Damián Knopoff

#### Abstract

In this seminar, I will present several mathematical tools for the kinetic modeling of complex systems composed of large numbers of interacting particles or agents. Examples include social dynamics, cellular systems, crowd dynamics, and epidemiological processes. I will introduce the fundamental concepts of the kinetic framework, analyze how interactions can be modeled at the mesoscopic scale, and then examine specific models for concrete applications together with numerical results.

#### Seminar spirit

The IKTrace Seminar is conceived as a regular forum for exchange across research lines, teaching interests, and interdisciplinary initiatives. This third session opens a space for mathematical discussion, informal questions, and possible future collaborations.

#### Event details

##### WHEN

July 2, 2026, 16:00-18:00

##### WHERE

Logistar Room  
DeustoTech, 4th floor

##### FORMAT

Coffee and discussion session

#### Keywords

- Kinetic modeling
- Complex systems
- Cellular systems
- Social dynamics
- Epidemiological modeling

#### Participation

Colleagues and students are warmly invited to attend, take part in the discussion, and share ideas related to their own research interests.