

## Seminar EDPs

**Speaker:** Hagop Tossounian (CMM).

**Title:** Kac's model with thermostats and rescaling.

**Abstract:** In this introductory talk we present Kac's model in statistical mechanics that involves  $N$  identical particles undergoing collisions. Kac introduced this model in 1956 to derive the Kac-Boltzmann equation: a one particle equation. Kac's approach in obtaining this equation is now known as "propagation of chaos". We also introduce thermostats and see their role in speeding up approach to equilibrium.

Finally, we introduce a rescaling mechanism for the thermostated Kac model, and establish uniform in time propagation of chaos (with explicit rates) for this model.

This work is joint with R. Cortez and the preprint can be found in arXiv:2007.03126.

**Martes 1 de septiembre a las 4pm vía zoom en:**

<https://uchile.zoom.us/j/88121344517?pwd=aHYreWIyWDBGcVUxdGNNMzjN2SzNFZz09>

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