

Hydrodynamic limit of Interacting particle systems, Cours 1

Stochastic Dynamics out of Equilibrium, April 3 - 7, 2017

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- Lecture 1. Interacting particle systems: the exclusion processes
- Lecture 2. Introduction to hydrodynamic limits; the hydrodynamic limit of the symmetric simple exclusion process.
- Lecture 3. General tools from the theory of Markov chains: entropy, entropy production, Feynman-Kac formula.
- Lecture 4. The hydrodynamic limit of gradient models, the replacement lemma.
- Lecture 5. Large deviations.
- Lecture 6. Non-gradient models.

Reference:

Kipnis C., Landim C.: Scaling Limits of Interacting Particle Systems, Springer 1999.