Seminar/Talk

Particle systems with singular interaction for Wasserstein-type diffusion.

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Host: Lorenzo Dello Schiavo

The talk is devoted to a system of interacting diffusion particles on the real line that start from an infinite set of points, move independently until they meet and then coalesce or sticky-reflect from each other. We additionally assume that particles transfer a mass obeying the conservation law, and their diffusion is inversely proportional to the mass. We will show that the process describing the evolution of particle mass solves a corrected Dean-Kawasaki equation for particle density in Langevin dynamics. This process also satisfies the Varadhan formula for short times that is governed by the quadratic Wasserstein distance.

Thursday, April 27, 2023 05:15pm - 06:15pm
Heinzel Seminar Room (I21.EG.101), Office Building West, ISTA

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