

## **PROPAGATION OF CHAOS FOR PARTICLE SYSTEMS: EXPLORATION OF THE ASYMPTOTICS AND APPLICATIONS**

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We are interested here in interacting particle systems. Such systems are used to approximate probability measures. The two examples I will talk about are the genetic particle systems and Bird/Nambu-like particle systems. Propagation of chaos is a property shared by these systems, it is an asymptotic property in term of the number of particles. I will show how one can do precise computation concerning this propagation of chaos and deduce convergence results for these systems.