Séminaire de Probabilités et Statistiques

Mardi 21 novembre à 14h00
Laboratoire Dieudonné
Salle de réunion (5e étage Fizeau)

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Mean Field Limits of Spatially Extended Hawkes Processes.

Neural Fields Equations have been widely studied in the literature since the pioneer works of Wilson, Cowan and Amari in the '70s. They constitute an important example of spatially structured neuronal networks with nonlocal interactions. However, much less is known about multi-scale analysis of neural networks that provides a rigorous derivation of neural field equations. In this talk, we shall briefly discuss how scalar Neural Field Equations can naturally emerge as mean field limits of spatially extended systems of interacting Hawkes processes.