

April 17, 2023
2:00pm-3:00pm
KAP 414

Prof. Qi Feng
(University of Michigan)

Exponential Entropy dissipation for weakly self-consistent
Vlasov-Fokker-Planck equations

Abstract: In this talk, I will talk about long-time dynamical behaviors of weakly self-consistent Vlasov-Fokker-Planck equations. We introduce Hessian matrix conditions on mean-field kernel functions, which characterizes the exponential convergence of solutions in L^1 distances. The matrix condition is derived from the dissipation of a selected Lyapunov functional, namely auxiliary Fisher information functional. We verify proposed matrix conditions in examples. I will also mention its connection to training of neural networks and other applications. This is a joint work with Erhan Bayraktar, and Wuchen Li.

Zoom Link: USC Math Finance Colloquium
Time: Apr 17, 2023 02:00 PM Pacific Time (US and Canada)

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