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## SEMINAR OF NUMERICAL ANALYSIS

> THURSDAY 16 NOVEMBER 2017 - ROOM MA A1 12 - 16:15

**Prof. Greg PAVLIOTIS** (Imperial College, London) will present a seminar entitled:

## "Long time behaviour and phase transitions for the McKean-Vlasov equation"

## Abstract:

The McKean-Vlasov equation is a nonlinear, nonlocal Fokker-Planck type equation that arises in the description of mean field limits for systems of weakly interacting diffusions. Due to the nonlinearity of the equation, it is possible that more than one invariant distributions exist, depending on the strength of the interaction and on the temperature (noise strength). In this talk, we will present some recent results on the long time behaviour of solutions to the McKean-Vlasov equation in a non-convex multiwell confining potential, with particular emphasis on the construction of the bifurcation diagram for the stationary states, as a function of the temperature.

Lausanne, 24 October 2017/FN/rb