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Title: Long time behavior of solutions of Vlasov-like equations.

Abstract: Vlasov-like equations are self consistent 1-degree of fredoom (or d-degrees of freedom) Hamiltonian systems, like Vlasov Poisson Equation (VPE); 2D Euler; and the Hamiltonian mean field model (HMF).
I'll make a short review of known rigorous results about asymptotic behavior of solutions of Vlasov-like equations: stationary stable solutions, BGK waves for VPE and rotating solutions for 2D Euler; Landau Dampimg.

Then I'll discuss some conjectures by A. Shnirelman on 2D fluids (Navier Stokes with noise in the vanishihng visocity limit) and present some related conjectures for VE.
Finally I'll discuss the possibility of building Eulerian periodic, but Langrangian chaotic, solutions for Vlasov like equations in the spirit of Morita and Kaneco 2006.