



Mês de: Julho 2011

SEMINÁRIO DE ANÁLISE E EQUAÇÕES DIFERENCIAIS

Dia 21 de Julho (quinta-feira), às 13h15, na Sala B3-01

“Kinetic phase transitions: existence and dynamical stability”

R. Esposito

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Abstract: "We consider a binary mixture of particles undergoing Boltzmann collisions with a long range interaction modeled by a Vlasov force. Under suitable conditions such a model exhibits a segregation phase transitions and the corresponding equilibrium states are multiple minimizers of a suitable free energy functional. In one space dimension, both in a bounded or unbounded interval, it is possible to discuss the dynamical stability of such equilibria with respect to the kinetic Vlasov-Boltzmann evolution, and show that the minimizers and the front solutions are stable, while the maximizer is unstable. On a large bounded interval the stability result can be completed by the proof of exponential decay to the equilibrium states."

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