Seminar/Talk

Relative entropy for compressible fluid flows

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Host: Julian Fischer

This talk is concerned with a class of models for compressible, inviscid fluid flows having a Hamiltonian structure. Examples include the Euler, Euler-Korteweg and Euler-Poisson models. We will discuss a unified relative entropy framework for these models which is an important tool in the derivation of weak-strong uniqueness results, i.e. as long as strong solutions for these models exist they are the unique entropy solutions, while in general entropy solutions may not be unique. We will also discuss how the relative entropy method can be used to compare solutions of different models. For example, in the large friction limit the Euler-Korteweg equations converge to the Cahn-Hilliard equation.

Monday, December 18, 2017 11:00am - 12:30pm
Big Seminar room Ground floor / Office Bldg West (I21.EG.101)

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