

Incompressible Navier-Stokes-Fourier limit from the Landau equation

Thursday, November 18, 2021 9:45 AM (30 minutes)

In this talk, we provide a result on the derivation of the incompressible Navier-Stokes-Fourier system from the Landau equation for hard, Maxwellian and moderately soft potentials. To this end, we first investigate the Cauchy theory associated to the rescaled Landau equation for small initial data. Our approach is based on proving estimates of some adapted Sobolev norms of the solution that are uniform in the Knudsen number. These uniform estimates also allow us to obtain a result of weak convergence towards the fluid limit system.

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