

On the hydrodynamic description of aerosols

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Abstract

We are interested in the dynamics of an aerosol, that is a cloud of fine particles immersed in an ambient fluid. Starting with a description by the Vlasov-Navier-Stokes system, we will show that in a certain high friction limit, the aerosol can be well described by the inhomogeneous incompressible Navier-Stokes system. This is a joint work with David Michel.