

# Some aspects of the kinetic-fluid coupling for sprays

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Abstract:

Sprays are multiphase flows in which small droplets are dispersed in a gas. Among the modeling possibilities, a coupling between a kinetic (Vlasov-Boltzmann) equation and fluid (Euler or Navier-Stokes) system can be used in situations when the volume fraction of droplets is not too large. We present some modeling, mathematical, and numerical aspects of such flows.