

Philippe Helluy - High order entropy dissipative lattice-Boltzmann method

Wednesday 22 May 2024 16:45 (45 minutes)

The Lattice-Boltzmann Method (LBM) is a highly efficient technique for simulating fluid flows. It is traditionally reserved to low-Mach viscous flows. In this talk we show how to extend it to compressible flows, thanks to the vectorial kinetic approach of Bouchut, how to achieve high-order accuracy with entropy dissipation and how to handle boundary conditions.