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Computing measure-valued and statistical solutions of hyperbolic conservation laws

There is an increasing body of evidence that common models of inviscid fluids, such as the (in)compressible Euler equations, are ill-posed in the sense that they admit infinitely many entropy solutions for the same initial data. The concept of measure-valued and statistical solutions suggests tackling this issue by viewing the solution as a probability distribution over all possible entropy solutions. In this mini-course I aim to present some of the tools for working with statistical solutions, as well as practical algorithms for computing such solutions.