Recent developments on numerical solutions for hyperbolic systems of conservation laws

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In 1757 Euler developed the famous Euler equations describing the flow of a compressible gas. This is a system of hyperbolic conservation laws in three space dimensions. However until recently one could not show convergence of numerical schemes to the 'classical' weak entropy solutions. By adapting the concept of measure-valued and statistical solutions to multidimensional systems Siddhatha Mishra and his coauthors could recently show convergence of numerical schemes. Mishra has presented these results at the ICM 2018 in Rio de Janeiro. After a brief introduction to the field these developments will be described.