

Convergence of approximate solutions for the compressible Navier-Stokes equations

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In this talk, we present some numerical schemes (used in industrial codes) for the computation of approximate solutions of the compressible Stokes and Navier Stokes equations. Then, we present some results of convergence of a sequence (up to a subsequence, since, up to now, no uniqueness result is available for this problem) of approximate solutions, given by a numerical scheme, as the mesh size goes to 0, to the a weak solution of the continuous problem. In particular, this proof gives the (already known) existence of a weak solution of the continuous problem.