

## Recent progress in existence theory for the 3D steady compressible Navier-Stokes equations

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In the last decades, significant progress has been made on the mathematical aspect of the steady Navier-Stokes equations for three-dimensional compressible flows. In this talk, we shall briefly review some recent existence results on weak solutions with large data. The ideas and developed techniques used in the existence theory (such as P.L. Lions' framework of the existence proof, new estimates in Morry spaces of both pressure and kinetic energy) will be presented, and some open questions will be discussed.