

**STEADY SOLUTIONS
TO THE NAVIER–STOKES–FOURIER SYSTEM
FOR DENSE COMPRESSIBLE FLUID**

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In memory of Marek Burnat

ABSTRACT. We establish existence of strong solutions to the stationary Navier–Stokes–Fourier system for compressible flows with density dependent viscosities in regime of heat conducting fluids with very high densities. In comparison to the known results considering the low Mach number case, we work in the L^p -setting combining the methods for the weak solutions with the method of decomposition. Moreover, the magnitude of gradient of the density as well as other data are not limited, our only assumption is the given total mass must be sufficiently large.

2010 *Mathematics Subject Classification.* 35Q35, 76N10.

Key words and phrases. Steady compressible Navier–Stokes–Fourier system; low Mach number limit; strong solution; density dependent viscosities; large data; existence via Schauder type fixed point theorem.

The first and the third author were supported by Czech Science Foundation grant No. 16-03230S.

The second author has been partly supported by Polish NCN grant No. 2014/13/B/ST1/03094.