

On a blow-up criterion for the Navier-Stokes-Fourier system**Authors:**

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Abstract: We consider the Navier-Stokes-Fourier system governing the motion of a compressible, viscous and heat-conducting fluid confined to a bounded domain, on the boundary of which inhomogeneous Dirichlet boundary condition for the temperature is imposed. It is well-known that the system admits solutions in the classical sense; however, their existence can be guaranteed only on a maximal time interval. We show that a blow-up will not occur as long as the density, the absolute temperature and the modulus of the fluid velocity remain bounded.

References: