

Abstract Submitted
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The Inviscid and Boundary Layer Approximations in Fluids with Large Bulk Viscosities¹ FATEMEH BAHMANI, MARK CRAMER, Virginia Polytechnic Institute and State University — We re-examine the structure of classical inviscid steady flow over a finite body in Navier-Stokes fluids having bulk viscosities which are large compared to their shear viscosities. When the ratio of bulk to shear viscosity is of the order of the square root of the Reynolds number both the inviscid flow and boundary layer require corrections on the order of the inverse square root of the Reynolds number.

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