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Title. Stability and well-posedness problems on the partially dissipated Boussinesq equations and the micropolar equations

Abstract. Fluid Mechanics is a central theme of science concerned with the study of the behavior of fluids when they are in state of motion or rest. When the density of the fluid is constant or its change with the pressure is so small that can be neglected, the fluid is said to be incompressible. Examination of such fluid flow phenomena is carried out with the help of the incompressible Navier-Stokes equations. These fundamental equations provide a mathematical model of the motion of the fluid. In this direction, this presentation is concerned with the study of two closely associated systems, the micropolar equations and the Boussinesq equations.