1067-35-282   **Michael Sever*** (`sever@math.huji.ac.il`), Department of Mathematics, The Hebrew University, Givat Ram, Jerusalem, Israel. *Systems of conservation or balance laws with Lorentz-rotation symmetry.*

We classify examples of systems of conservation/balance laws for which a priori estimates exist for solutions of Cauchy problems, and which admit Lorentz-rotation symmetries. The objective is to construct models of two-fluid, multifluid or magnetohydrodynamic flow with such properties. Then we discuss such models with Galilean-rotation symmetries by passage to the low-speed limit. (Received August 16, 2010)