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Kazuo Yamazaki* (kyamazaki@math.okstate.edu), 401 Mathematical Sciences Building,
Department of Mathematics, Oklahoma State University, Stillwater, OK 74078. *Remarks on the
regularity criteria of generalized MHD and Navier-Stokes systems.*

We discuss component reduction type result on the Serrin-type regularity criteria of fluid dynamics partial differential equations, in particular the magnetohydrodynamical systems and Navier-Stokes equations. We also discuss recent developments in the stochastic Navier-Stokes and magnetohydrodynamics systems. (Received July 10, 2013)