1113-35-72 **Kazuo Yamazaki*** (kyamazaki@math.wsu.edu), Department of Mathematics, Washington State University, Pullman, WA 99164-3113. *Recent developments on the micropolar and magneto-micropolar fluid systems: deterministic and stochastic perspectives.*

We review recent developments on the magnetohydrodynamics and its related systems such as the Navier-Stokes equations, Boussinesq system, magnetohydrodynamics-Benard problem, and in particular the micropolar and magneto-micropolar fluid systems. The topics include, depending on the time, the global regularity issue in the deterministic case, well-posedness, ergodicity and large deviation principle in the stochastic case. (Received August 11, 2015)