1064-35-143 **Mimi Dai*** (mdai@slugmail.ucsc.edu), 828 Koshland Way, Santa Cruz, CA 95064, and **Jie Qing** and **Maria Schonbek**. *Norm inflation for incompressible magneto-hydrodynamic system in* $\dot{B}_{\infty}^{-1,\infty}$.

Based on the construction of Bourgain and Pavlović for Navier-Stokes equations, we demonstrate that the solutions to the Cauchy problem for the three dimensional incompressible magneto-hydrodynamics (MHD) system can develop different types of norm inflation in $\dot{B}_{\infty}^{-1,\infty}$. Particularly the magnetic field can develop norm inflation in short time even when the velocity remains small and vice verse. Another interesting case is that, even with zero initial velocity, the velocity field can develop norm inflation in short time. We constructed different initial data to obtain these results using plane waves. (Received September 05, 2010)