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YUAN PEI* (ypei4@unl.edu), 203 Avery Hall, Lincoln, NE 68588. *Data Assimilation on Geophysical and fluid dynamics.*

In this talk, we introduce some recent progress on the continuous data assimilation algorithm in geophysical and fluid dynamical models. In particular, we show the analysis of this algorithm for the two-dimensional magnetohydrodynamic equations, i.e., we prove that the interpolated solution converges to the reference solution in both L^2 and H^1 norms exponentially fast in time, one of which case is that we only need to interpolate for one component of the Elsässer variables. This is joint work with Animikh Biswas, Joshua Hudson, and Adam Larios. (Received January 01, 2017)