

1171-65-28

**Ohannes A. Karakashian\*** (okarakas@utk.edu), Knoxville, TN 37919, and **Michael M. Wise.** *A posteriori error estimates for finite element methods for systems of nonlinear dispersive equations.*

We consider systems of Korteweg-de Vries type, coupled through their nonlinear terms. We construct and analyze a posteriori error estimates for semidiscrete and fully discrete approximations . The key tool employed is the dispersive reconstruction developed by Karakashian and Makridakis for related discontinuous Galerkin methods. We present a set of numerical experiments designed to gauge the effectivity of the error indicators. (Received August 04, 2021)