Jerry L Bona* (bona@math.uic.edu), Dept .Mathematics Statistics & Computer Sci., The University of Illinois at Chicago, 851 S. Morgan Street MC 249, Chicago, IL 60607. Long time bounds on higher derivatives of nearly integrable equations. Preliminary report.

For integrable systems, the infinite system of conservation laws often provide time-independent bounds on derivatives of any order of solutions. We indicate some partial results in this direction for a non-integrable, but in some sense nearly integrable equation related to the Korteweg - de Vries equation. (Received September 24, 2006)