1052-35-234   **M. A. Nivala*** (`man9@amath.washington.edu`) and **Bernard Deconinck**. *The stability of finite-genus solutions of the KdV equation.*

The stability of stationary periodic solutions of partial differential equations has been an area of increasing interest in the last decade. In this talk, we examine the orbital stability of the finite-genus solutions of period L of the KdV equation with respect to perturbations that are periodic of period NL, for any nonzero integer N. Our method relies heavily on the integrability of the KdV equation, specifically on its hierarchy of commuting flows. (Received August 28, 2009)