1064-35-23   **Dmitry E. Pelinovsky*** (`dmpeli@math.mcmaster.ca`), 1280 Main Street West, Hamilton, ON L8S 4K1, Canada. *Wave breaking in the dispersive wave equations.*

The Ostrovsky-Hunter equation governs evolution of shallow water waves on a rotating fluid in the limit of small high-frequency dispersion. Sufficient conditions for the wave breaking in the Ostrovsky-Hunter equation are found both on an infinite line and in a periodic domain. Using the method of characteristics, we also specify the blow-up rate at which the waves break. Numerical illustrations of the finite-time wave breaking are given in a periodic domain. This is a joint work with Yue Liu (University of Texas at Arlington) and Anton Sakovich (McMaster University). (Received August 06, 2010)