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Oscar Riano* (orianoca@fiu.edu), Department of Mathematics and Statistics, Florida International University-FIU, Miami, FL 33199. *Behavior of solutions for a Higher-dimensional version of the Benjamin-Ono (HBO) equation.*

We consider a higher-dimensional version of the Benjamin-Ono (HBO) equation in the 2D dimensional setting. This model was first used to describe 2D long-wave perturbations in a boundary-layer type shear flow. In this talk, we present properties of solutions both analytically and numerically. We confirm numerically the mass threshold for global vs. finite time existing solutions, which is typical in the focusing dispersive equations. We also show examples of different interactions of solitary wave solutions, including weak and strong interactions. (Received September 20, 2021)