1038-76-263 Min Chen\* (chen45@purdue.edu), 3413 covington street, west lafayette, IN 47906. Numerical Simulations of two-dimensional Boussinesq systems for three-dimensional water waves.

We present here a highly efficient and accurate numerical scheme for initial and boundary value problems of a twodimensional Boussinesq system which describes three-dimensional water waves over a moving and uneven bottom with pressure variation. The scheme is then used to study in details the waves generated from rectangular sources and the two-dimensional wave patterns. (Received February 11, 2008)