1030-76-84 **Min Chen*** (chen45@purdue.edu), Dept. of Math, Purdue Univ., West lafayette, IN 47906. Two-dimensional water wave patterns.

In this talk, we will investigate two-dimensional Boussinesq systems and show rigorously the existence of symmetric and asymmetric wave patterns. We will also generate them numerically and compare them with laboratory experiments. (Received July 19, 2007)