1014-76-1750 Jeongwhan Choi\* (jchoi@korea.ac.kr), Department of Mathmatics, Korea University, Sungbukgu Anamdong 5-1, 136-701 Seoul, South Korea, and W.S. Bae, Dept. of Math., Korea University, sungbukgu Anamdong 5-1, 135-701 Seoul, South Korea. Symmetric waves of a tow layer fluid over an obstruction.

We study two dimensional capillary-gravity waves on the interface between two immiscible, inviscid and incompressible fluids of different densities bounded by two rigid boundaries with small compact support. A forced modified K-dV equation is derived as a model equation without assuming that the fluid is of constant depth at far upstream. Various new types of steady symmetric waves are obtained numerically. (Received September 29, 2005)