

962-76-1063

Daniel Ahn* (tulboksoong@hotmail.com), Dept. of Math., College of Science, Korea University, Sunbukgu Anamdong 5-1, 136-701 Seoul, Korea, **Chaeho Lim** (chlim@semi.korea.ac.kr), Dept. of Math., College of Science, Korea University, Sunbukgu Anamdong 5-1, 136-701 Seoul, Korea, and **Jeongwhan Choi** (jchoi@korea.ac.kr), Dept. of Math., College of Science, Korea University, Sunbukgu Anamdong 5-1, 136-701 Seoul, Korea. *Capillary Gravity Surface Waves of a Fluid over an Obstruction.*

We study capillary-gravity surface waves of a fluid with finite depth with an obstruction at the rigid bottom. By assuming that the fluid has large potential at far upstream, a time dependent KdV equation with forcing term for surface wave is derived without using the constant condition at far upstream. Various new types of solutions for surface waves are discovered and numerical stabilities of such solutions are studied. (Received October 02, 2000)