1099-35-186 Mihaela Ifrim (ifrim@math.berkeley.edu) and Daniel Tataru\* (tataru@math.berkeley.edu). Global solutions for two dimensional gravity water waves.

We consider the infinite depth water wave equation in two space dimensions in the presence of gravity. We consider this problem expressed in position-velocity potential holomorphic coordinates, and prove that small localized data leads to global solutions. This improves and simplifies earlier results on this problem. (Received February 07, 2014)