

Mathematical analysis of Bump to Bucket problem

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In numerical simulations of surface water waves, when there is a deformation on the bottom, it is a common practice to transform from the boundary deformation data to the free surface.

In this talk, we investigate this procedure, by comparing the waves generated by the moving bottom (Bump) and by the initial surface variation (Bucket), using linear and nonlinear Boussinesq-type models. This is a joint work with Olivier Goubet and Shenghao Li.