

The bottom topography "invisible" for surface waves

Serguei Nazarov

Institute of Mechanical Engineering Problems, St Peterburg

Abstract: A simple algorithm is proposed for detecting gently sloped warps at the bottom of a channel which are either "invisible", or non-reflecting at a given frequency. In the first case only exponentially small perturbations of a surface wave may occur while in the second case also a shift of the phase is permitted after passing-by the warp. The results are obtained in cooperation with A.-S. Bonnet-BenDhia and J. Taskinen.