

عنوان مقاله:

HYDRAULIC AND NUMERICAL MODELING OF THE PERFORMANCE OF -TYPE FLOATING BREAKWATERS

محل انتشار:

دهمین همایش بین المللی سواحل، بنادر و سازه های دریایی (سال: 1391)

تعداد صفحات اصل مقاله: 12

نویسندگان:

Ali Abdolali - *PhD. Candidate - university of Roma*

Giorgio Bellotti - *assistant professor - university of Roma Tre*

Leopoldo Franco - *Professor - university of Roma Tre*

Morteza Kolahdoozan - *assistant professor - Amirkabir university of Technology*

خلاصه مقاله:

This paper gives details of the refinement of a two-dimensional numerical model for the computation of the floating breakwater (FB) response, allowed to oscillate only in heave. The numerical model results are validated and verified against laboratory tests. The model is based on the hypotheses of inviscid fluid and irrotational flow; linearized boundary conditions are applied at the free surface and at the object boundaries. The equations are solved using the Finite Element Method, allowing detailed description of complicated shapes of the object and bottom boundary. The resulting model is computationally efficient and economic. Validation is carried out using the results of a small scale experiments on a P type floating Breakwater. Additionally, a comparison between numerical results and a new empirical formula is presented. Despite of the simplifications of the model equations, the numerical results satisfactorily agree with the experimental ones. The model appears suitable for the preliminary design of Floating Breakwaters

کلمات کلیدی:

Floating Breakwater, -type, linearized numerical model, experimental data, transmission coefficient

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/184384>

