Software for analysis of tridimensional flow with free surface around a floating body

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ABSTRACT

In this paper, theoretical and essential numerical aspects applied in a program for analysis of tridimensional potential flow with free surface around a floating body with optional shallow water effect are presented. Treatment of free surface is fully nonlinear. Numerical method used is a boundary element method with desingularized elements. This program was used for wave estimation around a hull with assessment of its wave resistance.

Keywords: tridimensional flow, numerical methods, boundary element method

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