

## A Source Point Distribution Scheme for Wave-Body Interaction Problem

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**Abstract :** A two-dimensional linear wave-body interaction problem can be solved using a desingularized integral method by placing free surface Rankine sources over calm water surface and satisfying boundary conditions at prescribed collocation points on the calm water surface. A new free-surface Rankine source distribution scheme, determined by the intersection points of free surface and body surface, is developed to reduce numerical computation cost. Associated with this, a new treatment is given to the intersection point. The present scheme results are in good agreement with traditional numerical results and measurements.

**Keywords :** source point distribution, panel method, Rankine source, desingularized algorithm

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