

Water Waves And Ship Hydrodynamics

[DOWNLOAD HERE](#)

1.- Theory of water waves.- 1.1. Basic linear equations.- 1.2. Boundary conditions.- 1.3. Linearised theory.- 2. Linear wave phenomena.- 2.1. Travelling plane waves.- 2.2. Cylindrical waves.- 2.3. Harmonic source singularity.- 2.4. The moving pressure point.- 2.5. Wave fronts.- 2.6. Wave patterns.- 2.7. Singularity in a steady current.- 3. Boundary integral formulation and ship motions.- 3.1. Scattering of acoustic waves.- 3.2. Scattering of free surface waves.- 3.3. Slow speed approximation.- 4. Second-order theory.- 4.1. Second-order wave theory.- 4.2. Wave-drift forces and moments.- 4.3. Demonstration of second order effects, a classroom example.- 5. Asymptotic formulation.- 5.1. Thin ship hydrodynamics, Michell theory.- 5.2. Short wave diffraction by a sailing ship.- 6. Flexible floating platform.- 6.1. The finite draft problem.- 6.2. Semi-analytic solution.- 7. Irregular and Non-linear waves.- 7.1. Wiener spectrum.- 7.2. Shallow water theory.- 7.3. Non-linear dispersive waves.- 8. Shallow water ship hydrodynamics.- 8.1 Thin airfoil theory.- 8.2 Slender body theory.- 8.3 Free surface effects.- 8.4 Ships in a channel.- 8.5 Interaction of ships.- Appendix.- A. The method of stationary phase .- B. The method of characteristics .- C. Singular integral equations.- D. The two-dimensional Green s function .- E. Simplification of the set of algebraic equations .- References.- Index. EAN/ISBN : 9789400700963 Publisher(s): Springer Netherlands, Springer Science & Business Media Format: ePub/PDF Author(s): Hermans, A. J.

[DOWNLOAD HERE](#)

Similar manuals: