1. Record Nr. UNINA9911006653803321 Autore Faltinsen O. M (Odd Magnus), <1944-> Titolo Hydrodynamics of high-speed marine vehicles / / Odd M. Faltinsen Cambridge;; New York,: Cambridge University Press, 2005 Pubbl/distr/stampa **ISBN** 1-107-15217-8 1-107-38608-X 1-139-00709-2 0-511-20145-1 1-280-91756-3 9786610917563 0-511-29696-7 0-511-13613-7 0-511-13723-0 0-511-54606-8 0-511-13506-8 Descrizione fisica 1 online resource (xix, 454 pages) : digital, PDF file(s) Disciplina 623.8/1231 Soggetti Motorboats Ships - Hydrodynamics Hydrodynamics Hydrofoil boats Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Title from publisher's bibliographic system (viewed on 05 Oct 2015). Nota di bibliografia Includes bibliographical references (p. 437-449) and index. Nota di contenuto Cover; Half-title; Title; Copyright; Contents; Preface; List of symbols; 1 Introduction; 2 Resistance and Propulsion; 3 Waves; 4 Wave Resistance and Wash; 5 Surface Effect Ships; 6 Hydrofoil Vessels and Foil Theory; 7 Semi-displacement Vessels; 8 Slamming, Whipping, and Springing; 9 Planing Vessels; 10 Maneuvering; Appendix: Units of Measurement and Physical Constants; References; Index Hydrodynamics of High-Speed Marine Vehicles, first published in 2006. Sommario/riassunto discusses the three main categories of high-speed marine vehicles -

vessels supported by submerged hulls, air cushions or foils. The wave

environment, resistance, propulsion, seakeeping, sea loads and manoeuvring are extensively covered based on rational and simplified methods. Links to automatic control and structural mechanics are emphasized. A detailed description of waterjet propulsion is given and the effect of water depth on wash, resistance, sinkage and trim is discussed. Chapter topics include resistance and wash; slamming; air cushion-supported vessels, including a detailed discussion of wave-excited resonant oscillations in air cushion; and hydrofoil vessels. The book contains numerous illustrations, examples and exercises.