Record Nr. UNINA9911006635203321 Autore Ashley Holt **Titolo** Engineering analysis of flight vehicles / / Holt Ashley Pubbl/distr/stampa Mineola, New York:,: Dover Publications,, 2012 **ISBN** 9780486166537 1-5231-0954-8 0-486-16653-8 Edizione [1st ed.] Descrizione fisica 1 online resource (774 p.) Collana Dover Books on Aeronautical Engineering 629.132/3 Disciplina Soggetti Aerodinàmica Aerodynamics Mechanical Engineering **Engineering & Applied Sciences** Aeronautics Engineering & Astronautics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. "This Dover edition, first published in 1992 and reissued in 2012, is an unabridged, corrected republication of the work first published by the Addison-Wesley Publishing Company, Reading, Mass., 1974, in the "Addison-Wesley Aerospace Series" -- Bibliographical note Nota di contenuto Cover; Title Page; Copyright Page; Preface; Contents; Chapter 1 The Morphology of Flight Vehicles; 1.1 Introduction; 1.2 Key factors affecting vehicle configuration; 1.3 Some representative flight vehicles; 1.4 Problems: Chapter 2 Equations of Motion for Rigid Flight Vehicles; 2.1 Definitions: vector and scalar realizations of Newton's second law: 2.2 The tensor of inertia; 2.3 Choice of vehicle axes; 2.4 Orientation of the vehicle relative to the ground; flight-path determination; 2.5 Gravitational terms in the equations of motion; 2.6 The state vector 2.7 Three significant phenomena that have been neglected 2.8 Problems; Chapter 3 Introduction to Vehicle Aerodynamics; 3.1 Aerodynamic contributions to X, Z, and MP; dimensionless coefficients defined; 3.2 Equations of perturbed longitudinal motion; categories of problems in flight dynamics; 3.3 Problems; Chapter 4 Aerodynamic

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