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| Autore | Poincaré Henri |
| Titolo | The Three-Body Problem and the Equations of Dynamics : Poincaré's Foundational Work on Dynamical Systems Theory // by Henri Poincaré |
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| Soggetti | Dynamics Ergodic theory Statistical physics Astrophysics Physics Planetary science Dynamical Systems and Ergodic Theory Statistical Physics and Dynamical Systems Astrophysics and Astroparticles History and Philosophical Foundations of Physics Planetary Sciences |
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| Nota di bibliografia | Includes bibliographical references and indexes. |
| Nota di contenuto | Translator's Preface -- Author's Preface -- Part I. Review -- Chapter 1 General Properties of the Differential Equations -- Chapter 2 Theory of Integral Invariants -- Chapter 3 Theory of Periodic Solutions -- Part II. Equations of Dynamics and the N-Body Problem -- Chapter 4 Study of the Case with Only Two Degrees of Freedom -- Chapter 5 Study of the Asymptotic Surfaces -- Chapter 6 Various Results -- Chapter 7 Attempts at Generalization -- Erratum. References -- Index. . |
| Sommario/riassunto | Here is an accurate and readable translation of a seminal article by Henri Poincaré that is a classic in the study of dynamical systems popularly called chaos theory. In an effort to understand the stability of orbits in the solar system, Poincaré applied a Hamiltonian formulation |

to the equations of planetary motion and studied these differential equations in the limited case of three bodies to arrive at properties of the equations' solutions, such as orbital resonances and horseshoe orbits. Poincaré wrote for professional mathematicians and astronomers interested in celestial mechanics and differential equations. Contemporary historians of math or science and researchers in dynamical systems and planetary motion with an interest in the origin or history of their field will find his work fascinating. .
