1. Record Nr. UNINA9910453411803321

Autore	O Mathuna Diarmuid
Titolo	Integrable systems in celestial mechanics [[electronic resource] /] / Diarmuid O Mathuna
Pubbl/distr/stampa	Boston, Mass., : Birkhauser London, : Springer [distributor], c2008
ISBN	1-281-95454-3 9786611954543 0-8176-4595-0
Edizione	[1st ed. 2008.]
Descrizione fisica	1 online resource (240 p.)
Collana	Progress in mathematical physics ; ; v. 51
Disciplina	521
Soggetti	Celestial mechanics Two-body problem Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	General Introduction -- Lagrangian Mechanics -- The Kepler Problem -- The Euler Problem I — Planar Case -- The Euler Problem II — Three-dimensional Case -- The Earth Satellite — General Analysis -- The Earth Satellite — Some Special Orbits.
Sommario/riassunto	This work presents a unified treatment of three important integrable problems relevant to both Celestial and Quantum Mechanics. Under discussion are the Kepler (two-body) problem and the Euler (two-fixed center) problem, the latter being the more complex and more instructive, as it exhibits a richer and more varied solution structure. Further, because of the interesting investigations by the 20th century mathematical physicist J.P. Vinti, the Euler problem is now recognized as being intimately linked to the Vinti (Earth-satellite) problem. Here the analysis of these problems is shown to follow a definite shared pattern yielding exact forms for the solutions. A central feature is the detailed treatment of the planar Euler problem where the solutions are expressed in terms of Jacobian elliptic functions, yielding analytic representations for the orbits over the entire parameter range. This exhibits the rich and varied solution patterns that emerge in the Euler

	problem, which are illustrated in the appendix. A comparably detailed analysis is performed for the Earth-satellite (Vinti) problem. Key features: * Highlights shared features in the unified treatment of the Kepler, Euler, and Vinti problems * Raises challenges in analysis and astronomy, placing this trio of problems in the modern context * Includes a full analysis of the planar Euler problem * Highlights the complex and surprising orbit patterns that arise from the Euler problem * Provides a detailed analysis and solution for the Earth-satellite problem The analysis and results in this work will be of interest to graduate students in mathematics and physics (including physical chemistry) and researchers concerned with the general areas of dynamical systems, statistical mechanics, and mathematical physics and has direct application to celestial mechanics, astronomy, orbital mechanics, and aerospace engineering.

2.

Record Nr.	UNINA9910798254803321
Autore	McGinn Colin <1950->
Titolo	Inborn knowledge : the mystery within / / Colin McGinn
Pubbl/distr/stampa	Cambridge, Massachusetts : , : MIT Press, , [2015] ©2015
ISBN	0-262-33449-6 0-262-33448-8
Descrizione fisica	1 online resource (148 p.)
Disciplina	121/.3
Soggetti	Instinct (Philosophy) Knowledge, Theory of Internalism (Theory of knowledge)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	The traditional debate -- Problems with empiricism -- Nativism -- Implications.
Sommario/riassunto	"In this book, Colin McGinn presents a concise, clear, and compelling argument that the origins of knowledge are innate that nativism, not

empiricism, is correct in its theory of how concepts are acquired. McGinn considers the particular case of sensible qualities ideas of color, shape, taste, and so on. He argues that these, which he once regarded as the strongest case for the empiricist position, are in fact not well explained by the empiricist account that they derive from interactions with external objects. Rather, he contends, ideas of sensible qualities offer the strongest case for the nativist position that a large range of our knowledge is inborn, not acquired through the senses. Yet, McGinn cautions, how this can be is deeply problematic; we have no good theories about how innate knowledge is possible. Innate knowledge is a mystery, though a fact. McGinn describes the traditional debate between empiricism and nativism; offers an array of arguments against empiricism; constructs an argument in favor of nativism; and considers the philosophical consequences of adopting the nativist position, discussing perception, the mind body problem, the unconscious, metaphysics, and epistemology"--Publisher's website.