Record Nr. UNINA9910790404803321 Autore Dick Steven J. Titolo Discovery and classification in astronomy: controversy and consensus / / Steven J. Dick [[electronic resource]] Cambridge: ,: Cambridge University Press, , 2013 Pubbl/distr/stampa 1-107-27259-9 **ISBN** 1-316-09038-8 1-107-27531-8 1-107-27856-2 1-107-27407-9 1-139-52149-7 1-107-27733-7 Descrizione fisica 1 online resource (xvi, 458 pages) : digital, PDF file(s) Classificazione SCI034000 Disciplina 522 Soggetti Astronomy - Methodology Astronomy - History Discoveries in science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Title from publisher's bibliographic system (viewed on 05 Oct 2015). Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Machine generated contents note: Preface: Abbreviations: Introduction: the natural history of the heavens and the natural history of discovery: Part I. Entre; e: 1. The Pluto affair; Part II. Narratives of Discovery: 2. Moons, rings, and asteroids: discovery in the realm of the planets; 3. In Herschel's gardens: nebulous discoveries in the realm of the stars; 4. Dwarfs, giants, and planets (again!): the discovery of the stars themselves; 5. Galaxies, guasars, and clusters: discovery in the realm of the galaxies; Part III. Patterns of Discovery: 6. The structure of discovery; 7. The varieties of discovery; 8. Discovery and classification; Part IV. Drivers of Discovery: 9. Technology and theory as drivers of discovery; Part V. The Synthesis of Discovery: 10. Luxuriant gardens and the master narrative; 11. The meaning of discovery; Appendix I; Appendix II.

Astronomical discovery involves more than detecting something

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previously unseen. The reclassification of Pluto as a dwarf planet in 2006, and the controversy it generated, shows that discovery is a complex and ongoing process - one comprising various stages of research, interpretation and understanding. Ranging from Galileo's observation of Jupiter's satellites, Saturn's rings and star clusters, to Herschel's nebulae and the modern discovery of quasars and pulsars, Steven J. Dick's comprehensive history identifies the concept of 'extended discovery' as the engine of progress in astronomy. The text traces more than 400 years of telescopic observation, exploring how the signal discoveries of new astronomical objects relate to and inform one another, and why controversies such as Pluto's reclassification are commonplace in the field. The volume is complete with a detailed classification system for known classes of astronomical objects, offering students, researchers and amateur observers a valuable reference and guide.