

1. Record Nr.	UNINA9910795612403321
Titolo	The Pluto system after New Horizons // edited by S. Alan Stern [and four others]
Pubbl/distr/stampa	Tucson, Arizona : , : University of Arizona Press, , [2021] ©2021
ISBN	0-8165-4094-2
Edizione	[1st ed.]
Descrizione fisica	1 online resource (684 pages)
Collana	Space Science
Disciplina	523.49/22
Soggetti	Pluto (Dwarf planet) Pluto (Dwarf planet) Exploration
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Contents -- List of Contributing Authors -- Scientific Organizing Committee and Acknowledgment of Reviewers -- Foreword -- Preface -- Part 1: System Background -- The Discoveries of Pluto and the Kuiper Belt   R. P. Binzel and K. Schindler -- Early Pluto Science, the Imperative for Exploration, and New Horizons   J. I. Lunine, S. A. Stern, L. A. Young, M. J. Neufeld, and R. P. Binzel -- The Transneptunian Objects as the Context for Pluto: An Astronomical Perspective   M. A. Barucci, C. M. Dalle Ore, and S. Fornasier -- Part 2: Pluto -- The Geology of Pluto   O. L. White, J. M. Moore, A. D. Howard, P. M. Schenk, K. N. Singer, D. A. Williams, and R. M. C. Lopes -- Geodynamics of Pluto   F. Nimmo and W. B. McKinnon -- The Landscapes of Pluto as Witness to Climate Evolution   J. M. Moore and A. D. Howard -- Impact Craters on Pluto and Charon and Terrain Age Estimates   K. N. Singer, S. Greenstreet, P. M. Schenk, S. J. Robbins, and V. J. Bray -- Colors and Photometric Properties of Pluto   C. B. Olkin, C. J. A. Howett, S. Protopapa, W. M. Grundy, A. J. Verbiscer, and M. W. Buie -- Surface Composition of Pluto   D. P. Cruikshank, W. M. Grundy, S. Protopapa, B. Schmitt, and I. R. Linscott -- Rheological and Thermophysical Properties and Some Processes Involving Common Volatile Materials Found on Pluto's Surface   O. M. Umurhan, C. J. Ahrens, and V. F. Chevrier -- Composition and Structure of Pluto's Atmosphere   M. E. Summers, L. A. Young, G. R. Gladstone, and M. J.

Person -- Photochemistry and Haze Formation | K. E. Mandt, A. Luspay-Kuti, A. Cheng, K.-L. Jessup, and P. Gao -- Dynamics of Pluto's Atmosphere | F. Forget, T. Bertrand, D. Hinson, and A. Toigo -- Pluto's Volatile and Climate Cycles on Short and Long Timescales | L. A. Young, T. Bertrand, L. M. Trafton, F. Forget, A. M. Earle, and B. Sicardy -- Atmospheric Escape | D. F. Strobel.  
Solar Wind Interaction with the Pluto System | F. Bagenal, D. J. McComas, H. A. Elliott, E. J. Zirnstein, R. L. McNutt Jr., C. M. Lisse, P. Kollmann, P. A. Delamere, and N. P. Barnes -- Part 3: Charon and Pluto's Small Satellites -- The Geology and Geophysics of Charon | J. Spencer, R. A. Beyer, S. J. Robbins, K. N. Singer, and F. Nimmo -- Charon: Colors and Photometric Properties | C. J. A. Howett, C. B. Olkin, S. Protopapa, W. M. Grundy, A. J. Verbiscer, and B. J. Buratti -- Surface Composition of Charon | S. Protopapa, J. C. Cook, W. M. Grundy, D. P. Cruikshank, C. M. Dalle Ore, and R. A. Beyer -- The Small Satellites of Pluto | S. B. Porter, A. J. Verbiscer, H. A. Weaver, J. C. Cook, and W. M. Grundy -- Part 4: Origins, Interiors, and the Big Picture -- On the Origin of the Pluto System | R. M. Canup, K. M. Kratter, and M. Neveu -- Formation, Composition, and History of the Pluto System: A Post-New Horizons Synthesis | W. B. McKinnon, C. R. Glein, T. Bertrand, and A. R. Rhoden -- Transneptunian Space and the Post-Pluto Paradigm | A. H. Parker -- Future Exploration of the Pluto System | M. W. Buie, J. D. Hofgartner, V. J. Bray, and E. Lellouch -- The Exploration of the Primordial Kuiper Belt Object Arrokoth (2014 MU69) by New Horizons S. A. Stern, J. R. Spencer, H. A. Weaver, and C. B. Olkin -- Epilogue: New Horizons: An Abbreviated Photographic Journal | M. Soluri -- Appendix A: Pluto and Charon Nomenclature | R. A. Beyer and M. Showalter -- Appendix B: The New Horizons Instrument Suite | H. A. Weaver -- Index.

---

## Sommario/riassunto

"Once perceived as distant, cold, dark, and seemingly unknowable, Pluto had long been marked as the farthest and most unreachable frontier for solar system exploration. The Pluto System After New Horizons is the benchmark research compendium for synthesizing our understanding of the Pluto system. This volume reviews the work of researchers who have spent the last five years assimilating the data returned from New Horizons and the first full scientific synthesis of this fascinating system"--

---