

1. Record Nr.	UNINA9910972124103321
Titolo	Defending planet Earth : near-Earth object surveys and hazard mitigation strategies / / Committee to Review Near-Earth-Object Surveys and Hazard Mitigation Strategies ; Space Studies Board ; Aeronautics and Space Engineering Board, Division on Engineering and Physical Sciences, National Research Council of the National Academies
Pubbl/distr/stampa	Washington, D.C., : National Academies Press, c2010
ISBN	9786612787324 9780309157216 0309157218 9781282787322 1282787322 9780309149693 030914969X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (152 p.)
Disciplina	523.44
Soggetti	Near-Earth objects Asteroids - Collisions with Earth Comets - Collisions with Earth
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.
Nota di contenuto	""Front Matter""; ""Dedication""; ""Preface""; ""Acknowledgments""; ""Contents""; ""Summary""; ""1 Introduction""; ""2 Risk Analysis""; ""3 Survey and Detection of Near-Earth Objects""; ""4 Characterization""; ""5 Mitigation""; ""6 Research""; ""7 National and International Coordination and Collaboration""; ""8 Optimal Approaches""; ""Appendixes""; ""Appendix A: Independent Cost Assessment""; ""Appendix B: Letter of Request""; ""Appendix C: Committee, Panel, and Staff Biographical Information""; ""Appendix D: Minority Opinion Mark Boslough, Mitigation Panel Member"" ""Appendix E: Glossary and Selected Acronyms""
Sommario/riassunto	"The United States spends approximately \$4 million each year

searching for near-Earth objects (NEOs). The objective is to detect those that may collide with Earth. The majority of this funding supports the operation of several observatories that scan the sky searching for NEOs. This, however, is insufficient in detecting the majority of NEOs that may present a tangible threat to humanity. A significantly smaller amount of funding supports ways to protect the Earth from such a potential collision or "mitigation." In 2005, a Congressional mandate called for NASA to detect 90 percent of NEOs with diameters of 140 meters or greater by 2020. *Defending Planet Earth: Near-Earth Object Surveys and Hazard Mitigation Strategies* identifies the need for detection of objects as small as 30 to 50 meters as these can be highly destructive. The book explores four main types of mitigation including civil defense, "slow push" or "pull" methods, kinetic impactors and nuclear explosions. It also asserts that responding effectively to hazards posed by NEOs requires national and international cooperation. *Defending Planet Earth: Near-Earth Object Surveys and Hazard Mitigation Strategies* is a useful guide for scientists, astronomers, policy makers and engineers."--Publisher's description.
