

1. Record Nr.	UNINA9910782899703321
Titolo	Integrating multiscale observations of U.S. waters [[electronic resource] /] / Committee on Integrated Observations for Hydrologic and Related Sciences, Water Science and Technology Board, Division on Earth and Life Studies, National Research Council of the National Academies
Pubbl/distr/stampa	Washington, D.C., : National Academies Press, c2008
ISBN	0-309-17790-1 1-281-30015-2 9786611300159 0-309-11458-6
Descrizione fisica	1 online resource (210 p.)
Disciplina	551.480973
Soggetti	Water quality - Measurement - United States Environmental monitoring - United States - Data processing Data warehousing - United States Database management - United States Stream measurements - United States Artificial satellites in earth sciences - United States Artificial satellites in oceanography - United States Earth sciences - Remote sensing
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 (p. 161-180).
Nota di contenuto	""Preface""; ""Contents""; ""Summary""; ""1 Introduction""; ""2 Sensing from the Molecular to the Global Scale: New Opportunities and Challenges""; ""3 Integrating Observations, Models, and Users""; ""4 Case Studies on Integrated Observatories for Hydrological and Related Sciences""; ""5 Synthesis, Challenges, and Recommendations""; ""References""; ""Appendix A Key Water Science Research Questions and Challenges""; ""Appendix B Planning, Designing, Operating, and Utilizing the Results from an Integrated Observational-Modeling System"" ""Appendix C A Complementary National Research Council Study on

Sommario/riassunto

"Water is essential to life for humans and their food crops, and for ecosystems. Effective water management requires tracking the inflow, outflow, quantity and quality of ground-water and surface water, much like balancing a bank account. Currently, networks of ground-based instruments measure these in individual locations, while airborne and satellite sensors measure them over larger areas. Recent technological innovations offer unprecedented possibilities to integrate space, air, and land observations to advance water science and guide management decisions. This book concludes that in order to realize the potential of integrated data, agencies, universities, and the private sector must work together to develop new kinds of sensors, test them in field studies, and help users to apply this information to real problems"--
Publisher.
