Record Nr. UNINA9910299438103321 Autore Krapivin Vladimir F Titolo New Ecoinformatics Tools in Environmental Science: Applications and Decision-making / / by Vladimir F. Krapivin, Costas A. Varotsos, Vladimir Yu. Soldatov Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2015 3-319-13978-9 ISBN Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (931 p.) Collana Environmental Earth Sciences, , 2199-9155 Disciplina 363.7 Soggetti Environmental sciences Statistics **Environmental Science and Engineering** Math. Appl. in Environmental Science Statistics and Computing/Statistics Programs Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Information-modeling technology for the environmental monitoring --Remote-sensing technologies and data processing algorithms --Environmental decision-making -- Ecoinformatics problems of the world ocean -- Ecoinformatics problems of global climate change --The Arctic environmental problems -- Tropical cyclogenesis and ecoinformatics methods -- Ecoinformatics and soil-plant formations --Operational diagnostics, estimation of the scale of damage and aftermath reduction of stressful natural processes -- Ecoinformatics problems in the future world. Sommario/riassunto This book provides new insights on the study of global environmental changes using the ecoinformatics tools and the adaptive-evolutionary technology of geoinformation monitoring. The main advantage of this book is that it gathers and presents extensive interdisciplinary expertise in the parameterization of global biogeochemical cycles and other environmental processes in the context of globalization and sustainable development. In this regard, the crucial global problems

concerning the dynamics of the nature-society system are considered

and the key problems of ensuring the system's sustainable development are studied. A new approach to the numerical modeling of the nature-society system is proposed and results are provided on modeling the dynamics of the system's characteristics with regard to scenarios of anthropogenic impacts on biogeochemical cycles, land ecosystems and oceans. The main purpose of this book is to develop a universal guide to information-modeling technologies for assessing the function of environmental subsystems under various climatic and anthropogenic conditions.