Contents

1 Introduction ......................................................... 1
DanLing (Lingzis) Tang and Gad Levy

Part I Satellite Observation System and International Cooperation

2 Climate Data Issues from an Oceanographic Remote Sensing Perspective ......................................................... 7
Kristina B. Katsaros, Abderrahim Bentamy, Mark Bourassa, Naoto Ebuchi, James (Jim) Gower, W. Timothy Liu, and Stefano Vignudelli

3 Altimeter Observations of Sea Level and Currents off Atlantic Canada .......................................................... 33
Guoqi Han

4 Eddy Statistics for the Black Sea by Visible and Infrared Remote Sensing .......................................................... 61
Svetlana Karimova

5 Passive Ocean Remote Sensing by Near-Space Vehicle-borne GPS Receiver ......................................................... 77
Wen-Qin Wang, Jingye Cai, and Qicong Peng

Part II Global Changes

6 A Global Survey of Intense Surface Plankton Blooms and Floating Vegetation Using MERIS MCI ......................................................... 99
James (Jim) Gower and Stephanie King

7 Evaluating Sea Ice Deformation in the Beaufort Sea Using a Kinematic Crack Algorithm with RGPS Data ............ 123
K. Peterson and D. Sulsky

8 Satellite Air – Sea Fluxes .................................................. 141
Abderrahim Bentamy, Kristina B. Katsaros, and Pierre Queffeulou

9 Remote Sensing of Oil Films in the Context of Global Changes .......................................................... 169
Andrei Yu. Ivanov
Part III Coastal Environment

10 Coastal Monitoring by Satellite-Based SAR
Antony K. Liu

11 Satellite Altimetry: Sailing Closer to the Coast
Stefano Vignudelli, Paolo Cipollini, Christine Gommenginger, Scott Gleason, Helen M. Snaith, Henrique Coelho, M. Joana Fernandes, Clara Lázaro, Alexandra L. Nunes, Jesus Gómez-Enri, Cristina Martin-Puig, Philip Woodworth, Salvatore Dinardo, and Jérôme Benveniste

12 Low Primary Productivity in the Chukchi Sea Controlled by Warm Pacific Water: A Data-Model Fusion Study
Kohei Mizobata, Jia Wang, Haoguo Hu, and Daoru Wang

13 Medium Resolution Microwave, Thermal and Optical Satellite Sensors: Characterizing Coastal Environments Through the Observation of Dynamical Processes
Domingo A. Gagliardini

Part IV Regional Observation

14 Satellite Observation on the Exceptional Intrusion of Cold Water and Its Impact on Coastal Fisheries Around Peng-Hu Islands, Taiwan Strait
Ming-An Lee, Yi Chang, Kuo-Wei Lan, Jui-Wen Chan, and Wei-Juan Hsieh

15 Comparison of the Satellite and Ship Estimates of Chlorophyll-a Concentration in the Sea of Japan
Elena A. Shtraikhert, Sergey P. Zakharkov, and Tatyana N. Gordeychuk

16 Observed Interannual Variability of the Thermohaline Structure in the South Eastern Arabian Sea
Nisha Kurian, Joshua Costa, V. Suneel, V.V. Gopalakrishna, R.R. Rao, K. Girish, S. Amritash, M. Ravichandran, Lix John, and C. Ravichandran

Part V Natural Hazards

17 Satellite Observations Defying the Long-Held Tsunami Genesis Theory
Y. Tony Song and Shin-Chan Han

18 Tsunami Source Reconstruction by Topex/Poseidon Data
Vladimir V. Ivanov
19 Scientific Research Based Optimisation and Geo-information Technologies for Integrating Environmental Planning in Disaster Management 359
Hussain Aziz Saleh and Georges Allaert

Index 391
Remote Sensing of the Changing Oceans
Tang, D.L. (Ed.)
2011, XXVI, 396 p. 182 illus., 130 illus. in color., Hardcover
ISBN: 978-3-642-16540-5