

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 Queffeuilou	
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	195
	Antony K. Liu	
11	Satellite Altimetry: Sailing Closer to the Coast	217
	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	239
	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	251
	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	281
	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	293
	Elena A. Shtraikhert, Sergey P. Zakharkov, and Tatyana N. Gordeychuk	
16	Observed Interannual Variability of the Thermohaline Structure in the South Eastern Arabian Sea	305
	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	327
	Y. Tony Song and Shin-Chan Han	
18	Tsunami Source Reconstruction by Topex/Poseidon Data	343
	Vladimir V. Ivanov	

Contents

xi

**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