

Contents

1	Hurricane Precipitation Observed by SAR	1
	D.G. Long and C. Nie	
2	Tropical Cyclone Multiscale Wind Features from Spaceborne Synthetic Aperture Radar.	25
	Jun A. Zhang and Xiaofeng Li	
3	Observations of Typhoon Eye on Ocean Surface Using SAR and Other Satellite Sensors.	41
	Antony K. Liu, Yu-Hsin Cheng and Jingsong Yang	
4	Tropical Cyclone Wind Field Reconstruction from SAR and Analytical Model	69
	Xiaofeng Yang, Xuan Zhou, Xiaofeng Li and Ziwei Li	
5	High Wind Speed Retrieval from Multi-polarization SAR.	85
	Biao Zhang and William Perrie	
6	Observation of Sea Surface Wind and Wave in X-Band TerraSAR-X and TanDEM-X Over Hurricane Sandy	99
	XiaoMing Li and Susanne Lehner	
7	Extracting Hurricane Eye Morphology from Spaceborne SAR Images Using Morphological Analysis	119
	Isabella K. Lee, Ali Shamsoddini, Xiaofeng Li, John C. Trinder and Zeyu Li	
8	Tropical Cyclone Center Location in SAR Images Based on Feature Learning and Visual Saliency	141
	Shaohui Jin, Shuang Wang, Xiaofeng Li, Licheng Jiao and Jun A. Zhang	
9	Observing Typhoons from Satellite-Derived Images.	183
	Gang Zheng, Jingsong Yang, Antony K. Liu, Xiaofeng Li, William G. Pichel, Shuangyan He and Shui Yu	

10	Coupled Nature of Hurricane Wind and Wave Properties for Ocean Remote Sensing of Hurricane Wind Speed	215
	Paul A. Hwang, Xiaofeng Li and Biao Zhang	
11	Hurricane Winds Retrieval from C Band Co-pol SAR.	237
	Hui Shen, Will Perrie and Yijun He	
12	Sea-Level Pressure Retrieval from SAR Images of Tropical Cyclones.	255
	Ralph Foster	
13	Electromagnetic Scattering of Rainfall and Tropical Cyclones over Ocean.	271
	Feng Xu and Xiaofeng Li	
14	Synthetic Aperture Radar Observations of Extreme Hurricane Wind and Rain	299
	Guosheng Zhang, Xiaofeng Li and William Perrie	
15	Detecting the Effects of Hurricanes on Oil Infrastructure (Damage and Oil Spills) Using Synthetic Aperture Radar (SAR) Imagery.	347
	Christopher R. Jackson and Oscar Garcia-Pineda	
16	Tropical Cyclone Eye Morphology and Extratropical-Cyclone-Forced Mountain Lee Waves on SAR Imagery.	373
	Qing Xu, Xiaofeng Li, Shaowu Bao and Guosheng Zhang	

Hurricane Monitoring With Spaceborne Synthetic
Aperture Radar

Li, X. (Ed.)

2017, XIII, 398 p. 238 illus., 191 illus. in color.,
Hardcover

ISBN: 978-981-10-2892-2