

CONTENTS

Preface	iii
Earth Surface Temperature evolution during the years 2003-2020 from MODIS data J. A. Sobrino, S. García-Monteiro, Y. Julien	1
Lake Surface Water Temperature evolution in the world's largest lakes during the years 2003-2020 from MODIS data J. A. Sobrino, S. García-Monteiro, Y. Julien	7
Exploring spatio-temporal spectral and functional variability in Mediterranean grasslands M. Pilar Martín, Vicente Burchard-Levine, Rosario González-Cascón, Javier Pacheco-Labrador, David Riaño	12
Exploring the capabilities of Sentinel-2 reflectance to predict soil organic carbon in Spain S. Sánchez-Ruiz, M. Campos-Taberner, M. Chiesi, F. Maselli, B. Martínez, F. J. García-Haro, M. A. Gilabert	16
First Applications of High Resolution BRDF Algorithm (HABA) for reflectance normalization on a fusion dataset from the Sen2Like processor Moletto-Lobos I., Franch B., Saunier S., Louis J., Cadau E., Debaecker V., Pflug B., De Los Reyes R., Boccia V., Gascon F.	20
Assessing and improving the consistency between the AVHRR/Metop and SEVIRI/MSG vegetation products Francisco Javier García-Haro, Manuel Campos-Taberner, Beatriz Martínez, Sergio Sánchez-Ruiz, María Amparo Gilabert, Jorge Sánchez-Zapero, Fernando Camacho, Enrique Martínez-Sánchez	26
Carbon fluxes estimation combining SEVIRI/MSG products, machine learning and in situ data Manuel Campos-Taberner, Beatriz Martínez, Sergio Sánchez-Ruiz, Francisco Javier García-Haro, María Amparo Gilabert	30
Estimation of surface energy and CO₂ fluxes through remote sensing in a Juniper tree ecosystem at the National Park of Doñana Pedro J. Gómez-Giráldez, Jordi Cristóbal, Héctor Nieto, Ricardo Díaz-Delgado	34
Evaluation of an operational multiple resolution evapotranspiration algorithms over a temperate basin on Chiloé Island mounted on a WebGIS platform Moletto-Lobos I., Mattar C., Acuña-Ruz T., Amézquita L., Sanyer W., Muñoz R., Áviles F., Bono, L., Garate, P., Olea-Encina, P., Troncoso, R., Arce, S., Neira H.,	39
Building and validating NOAA-AVHRR orbital drift correction methods by using MSG-SEVIRI temperature data Y. Julien, J. A. Sobrino	44
ECOSTRESS products for drought monitoring over different land covers J. C. Jimenez, G. Cottier, J. A. Sobrino, D. Skokovic, G. Sòria, Y. Julien, B. Franch, S. García, R. Llorens	48

Mediterranean Climate Zones, Time Series Analysis from 2010 to 2022: 100 Biophysical Indices, 300 Algorithms and 6 Satellites	52
F-E. Ezzaher, N. Ben Achhab, H. Naciri, J. A. Sobrino, N. Raissouni	
Mediterranean Basin Vegetation Forecasting Approaches: Accuracy Analysis & Climate-Land Cover-Sensor nexus Impacts	58
H. Naciri, N. Ben Achhab, F-E. Ezzaher, J. A. Sobrino, N. Raissouni	
Estimation of fire severity using Sentinel-2 spectral indices in the 2020 Galicia forest fires	63
Rafael Llorens, José Antonio Sobrino, Cristina Fernández, José M. Fernández-Alonso, José A. Vega	
Monitoring winter barley within-field yield using PolSAR, backscatter coefficients and surface reflectance data	69
B. Mollà-Bononad, B. Franch, I. Moletto-Lobos, J. M. López-Sánchez, J. Cintas, M. J. Sánchez-Torres, A. San Bautista, C. Rubio	
Yield forecast models and nitrogen content management in rice crops in Valencia.	74
M.J. Sánchez-Torres, B. Franch, A. San Bautista, C. Rubio, C. Domingo	
Analysis of Surface Urban Heat Island effect during 2021 using automatic classification of Spanish cities with Deep Learning algorithms	80
Salinas-González, Daniel, Skoković, Drazen, Sobrino, José A	
Inter-annual trends of FAPAR and FVC SEVIRI/MSG climate data records along the period 2005-2020	85
B. Martínez, S. Sánchez-Ruiz, M. Campos-Taberner, F.J. García-Haro, M.A. Gilabert	
Spatiotemporal evolution of the land cover over Deception Island, Antarctica, its impact on albedo and its relationship with meteorological variables	89
Javier F. Calleja, Susana Fernández, Rubén Muñiz, Jaime Otero, Francisco Navarro, Alejandro Corbea-Pérez, Carleen Reijmer, Miguel Ángel de Pablo	
Long-term Dynamics of Land Surface Temperature over Europe: Towards a Daytime normalized AVHRR Land Surface Temperature Product	93
Philipp Reiners, Stefanie Holzwarth, Sarah Asam, Ursula Gessner, Claudia Kuenzer	
Evaluation of repeat-pass interferometric coherence from Sentinel-1 as a vegetation index for crop monitoring	98
Arturo Villarroja-Carpio, Juan M. Lopez-Sanchez, Marcus Engdahl	
Study of Effects of Different Vegetation Model Parameter Settings on Quantitative CFD Simulation of Urban Spatial Air Temperature and Wind-field	104
Chen Fei, Hongyuan Huo, Jing Tao, Zhaofang Wang, Li Guo, Xiangtian Bai, Zhao-Liang Li	
Simulation of Canopy Urban Heat Island at a Block Scale Based on Local Climate Zones and Urban Weather Generator	111
Wenzhi Zhang, Hongyuan Huo, Xiaowei Geng, Jing Tao, Ping Zhou, Li Guo	
Simulation of UFZ Air Temperature Based on GF-2 Remotely Sensed Data and UWG: A Case Study of Beijing, China	116
Xiaowei Geng, Hongyuan Huo, Yunlong Chen, Wenzhi Zhang, Li Guo, Zhao-Liang Li	
3D Spatial wind and thermal environment simulation of modern gardens in North and South China and its comparative analysis based on CFD and High remote sensing data	122
Jing Tao, Hongyuan Huo, Xiaowei Geng, Wenzhi Zhang, Li Guo, Zhao-Liang Li	
Ensemble Learning methods for Soil Moisture Retrieval from Radar Images	128
Liguo Wang, Ya Gao, Geji Zhong, Yitong Wang	
Assessment of water stress of major river basins in China for Sustainable Development Goals	133
Jing Lu, Li Jia	
Retrieval of vegetation water content with multi-frequency passive microwave sensor AMSR-E data	139
Cunxin Cui and Bo-Hui Tang	

Identification of tea plantations in plateau areas based on Sentinel-1/2 active and passive remote sensing data	145
Shanchuan Gao and Bo-Hui Tang	
The use of temporal sample migration to explore crop type from remotely sensed data	151
Shibo Zhang, Jingya Yang, Jing Sun, Qiong Hu, Pei leng, Miao Lu, Yuman Ma, Hongyang Wang, Wenbin Wu, Qian Song	
Estimation of gross primary productivity of Xishuangbanna tropical seasonal rainforest based on VPM correction model	155
Siqi Feng and Bo-Hui Tang	
Estimating the downwelling surface longwave radiation under all-sky conditions from FengYun-4A Data	161
Yun Jiang, Bo-Hui Tang and Huanyu Zhang	
Estimation of all-weather land surface temperature based on deep neural network by combining AMSR2 and MODIS data	167
Zhong Peng, Ronglin Tang, Yazhen Jiang, Meng Liu, Zhao-Liang Li	
Influence of hyperspectral thermal infrared sensor channel selection on land surface temperature and emissivity inversion accuracy	172
Xiujuan Li, Hua Wu, Zhaoliang Li, Ni Li	
Retrieval of apparent fluorescence quantum efficiency from FLEX-FLORIS 500-780 nm	176
Shari Van Wittenberghe, Ana Belen Pascual, Adrian Perez, Eatidal Amin, Carolina Tenjo, Neus Sabater, Jose Moreno	
AUTHOR INDEX	181