SPIE. OPTICS+ PHOTONICS OPTICAL ENGINEERING+ APPLICATIONS

San Diego Convention Center
San Diego, California, United States
19 - 23 August 2018

Remote Sensing and Modeling of Ecosystems for Sustainability XV

Wednesday 22 August 2018

Conference Sessions At A Glance
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1: Remote Sensing, Modeling Application, and GIS I
Remote Sensing Plenary Session
2: Remote Sensing, Modeling Application, and GIS II
3: Remote Sensing for Agriculture, Ecosystems, and Hydrology
Posters-Wednesday

Important Dates
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Abstract Due:
7 February 2018

Author Notification:
16 April 2018

Manuscript Due Date:
25 July 2018

Conference Committee
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Conference Chairs
Wei Gao, Colorado State Univ. (United States)
Ni-Bin Chang, Univ. of Central Florida (United States)
Jinnian Wang, CHINARS SHENZHEN Institute for Satellite Applications Innovation (China)

Program Committee
May Chui, The Univ. of Hong Kong (Hong Kong, China)
E. Raymond Hunt, Agricultural Research Service (United States)
Brian Robert Johnson, National Snow and Ice Data Ctr. (United States)
Thomas U. Kampe, Ball Aerospace & Technologies Corp. (United States)
Xin-Zhong Liang, Univ. of Maryland, College Park (United States)

Program Committee continued...
William Parton, Colorado State Univ. (United States)
David Riaño, Univ. of California, Davis (United States)
Runhe Shi, East China Normal Univ. (China)
Jiong Shu, East China Normal Univ. (China)
Zhibin Sun, Colorado State Univ. (United States)
Hongjie Xie, The Univ. of Texas at San Antonio (United States)
Xiaobing Zhou, Montana Tech (United States)
K. Raja Reddy, Mississippi State Univ. (United States)

WEDNESDAY 22 AUGUST   Show All Abstracts

Session 1:
Remote Sensing, Modeling Application, and GIS I

Wednesday 22 August 2018
8:10 AM - 10:30 AM
Location: Conv. Ctr. Room 31A

Session Chairs: Thomas U. Kampe, Ball Aerospace (United States) ; Brian R. Johnson, National Snow and Ice Data Ctr. (United States)

Harnessing commercial satellite technologies to monitor our forests *(Invited Paper)*
Paper 10767-1
Time: 8:10 AM - 8:40 AM
Author(s): Brian R. Johnson, Joseph McGlinchy, Megan Cattau, Maxwell Joseph, Victoria Scholl, Univ. of Colorado Boulder (United States)
Add To My Schedule

Characterization of canola canopies using optical and SAR imagery
Paper 10767-4
Time: 9:10 AM - 9:30 AM
Author(s): Xianfeng Jiao, Heather McNairn, Mehdi Hosseini , Agriculture and Agri-Food Canada (Canada); Saeid Homayouni, Univ. of Ottawa (Canada)
Add To My Schedule

Synthetic aperture radar for pipeline right-of-way monitoring
Paper 10767-51
Time: 9:30 AM - 9:50 AM
Author(s): Charles C. Wamsley, David Draper, Todd Pett, Shane Roark, Ball Aerospace (United States)
Add To My Schedule

Green areas and urban heat island: combining remote sensed data with ground observations
Paper 10767-6
Time: 9:50 AM - 10:10 AM
Author(s): Blanca Arellano, Josep Roca Cladera, Enric Batlle, Univ. Politècnica de Catalunya (Spain)
Add To My Schedule

Assessment of the small aquatic animal response to the temperature-induced stress conditions by using upconversion luminescent particles
Paper 10767-7
Time: 10:10 AM - 10:30 AM
Author(s): Alexey P. Popov, Elena Volkova, Univ. of Oulu (Finland); Anton Gurkov, Irkutsk State Univ. (Russian Federation); Ekaterina Borvinskaya, Karelian Research Ctr. (Russian Federation); Alexander Bykov, Univ. of Oulu (Finland); Maxim Timofeyev, Irkutsk State Univ. (Russian Federation); Igor Meglinski, Univ. of Oulu (Finland)

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Coffee Break 10:30 AM - 11:00 AM

Session Plen:
Remote Sensing Plenary Session

Wednesday 22 August 2018
11:00 AM - 11:50 AM
Location: Conv. Ctr. Ballroom 20A

Session Chair: James J. Butler, NASA Goddard Space Flight Ctr. (United States)

Remote sensing of weather, climate, and environment (Conference Presentation) *(Plenary Presentation)*
Paper 10764-401
Time: 11:00 AM - 11:50 AM
Author(s): K. Dieter Klaes, EUMETSAT (Germany)

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Lunch/Exhibition Break 11:50 AM - 1:20 PM

Session 2:
Remote Sensing, Modeling Application, and GIS II

Wednesday 22 August 2018
1:20 PM - 2:30 PM
Location: Conv. Ctr. Room 31A

Session Chairs: Thomas U. Kampe, Ball Aerospace (United States) ; Brian R. Johnson, National Snow and Ice Data Ctr. (United States)

The Compact Hyperspectral Prism Spectrometer: Advanced imaging spectrometer for sustainable land imaging *(Invited Paper)*
Paper 10767-8
Time: 1:20 PM - 1:50 PM
Author(s): Thomas U. Kampe, Ball Aerospace (United States)

Add To My Schedule

A method for quantifying the number of US lakes with cyanobacterial harmful algal blooms using satellite remote sensing
Paper 10767-9
Time: 1:50 PM - 2:10 PM
Author(s): Megan M. Coffer, Blake A. Schaeffer, Erin A. Urquhart, John A. Darling, Wilson B. Salls, U.S. Environmental Protection Agency (United States)

Add To My Schedule

The urbanization impact in China: a prospective model (1992-2025)
Paper 10767-10
Time: 2:10 PM - 2:30 PM
Author(s): Blanca Arellano, Josep Roca, Univ. Politècnica de Catalunya (Spain)

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Session 3:
Remote Sensing for Agriculture, Ecosystems, and Hydrology

Wednesday 22 August 2018
2:30 PM - 5:10 PM
Location: Conv. Ctr. Room 31A

Session Chairs: Ni-Bin Chang, Univ. of Central Florida (United States) ; Zhibin Sun, USDA UV-B Monitoring and Research Program (United States)

Challenges to sustainable desertification reversion in China *(Invited Paper)*
(Canceled)
Paper 10767-11
Time: 2:30 PM - 3:00 PM
Author(s):

Spatial interpolation of surface ozone observations using deep learning *(Invited Paper)*
Paper 10767-12
Time: 3:00 PM - 3:30 PM
Author(s): Maosi Chen, Zhibin Sun, John M. Davis, USDA UV-B Monitoring and Research Program (United States); Chaoshun Liu, East China Normal Univ. (China); Wei Gao, USDA UV-B Monitoring and Research Program (United States)
Add To My Schedule

Coffee Break 3:30 PM - 3:50 PM

Ensemble learning of satellite remote sensing images via integrating deep and fast learning algorithms for water quality monitoring (Conference Presentation)
Paper 10767-13
Time: 3:50 PM - 4:10 PM
Author(s): Ni-Bin Chang, Univ. of Central Florida (United States); Zhibin Sun, Wei Gao, USDA UV-B Monitoring and Research Program (United States)
Add To My Schedule

Rapid generation of forest cover products based on the global forest eco-zoning
(Canceled)
Paper 10767-14
Time: 4:10 PM - 4:30 PM
Author(s):

Investigation of the impact of urban vegetation on air pollutants based on remotely-sensed measurements: a case study in Shenzhen, China
Paper 10767-17
Time: 4:50 PM - 5:10 PM
Author(s): Weimin Wang, Lijun Yang, China National Environmental Monitoring Ctr. (China); Liming Wang, Portland State Univ. (United States); Qinghuai Zeng, Lihuan He, China National Environmental Monitoring Ctr. (China)
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Session PWed:
Posters-Wednesday

Wednesday 22 August 2018
5:30 PM - 7:30 PM
Location: Conv. Ctr. Room 20C

Conference attendees are invited to view the posters, enjoy light refreshments, ask questions, and network with colleagues in your field. Authors of poster papers will be present to answer questions concerning their papers. Attendees are required to wear their conference registration badges to the poster sessions. Poster authors, view poster presentation guidelines at http://spie.org/OPPosterGuidelines.

Study on spatial distribution of aerosol optical depth and particulate matter using MODIS data
Paper 10767-18
Time: 5:30 PM - 7:30 PM
Author(s): Jicai Ning, Zhiqiang Gao, Yantai Institute of Coastal Zone Research (China); Maosi Chen, USDA UV-B Monitoring and Research Program and Center of Remote Sensing and Modeling for Agricultural (United States)
Add To My Schedule

Research on crop classification in Northeast China based on multi-source and multi-temporal SAR Images
Paper 10767-20
Time: 5:30 PM - 7:30 PM
Author(s): Fachuan He, Lingjia Gu, Ruizhi Ren, Xintong Fan, Jilin Univ. (China)
Add To My Schedule

Research of forest type identification based on multi-dimensional POLSAR data in Northeast China
Paper 10767-21
Time: 5:30 PM - 7:30 PM
Author(s): Zhou Xiaohu, Lingjia Gu, Ruizhi Ren, Xintong Fan, Jilin Univ. (China)
Add To My Schedule

The spatial distribution characteristics and ground-level estimation of NO_2 and SO_2 over Huaihe River Basin and Shanghai based on satellite observations
Paper 10767-22
Time: 5:30 PM - 7:30 PM
Author(s): Deying Zhang, Yunyun Zhou, Lan Zheng, Runhe Shi, East China Normal Univ. (China); Maosi Chen, Colorado State University (United States)
Add To My Schedule

Study on the extraction method of tidal flat
Paper 10767-23
Time: 5:30 PM - 7:30 PM
Author(s): Yuanyuan Zhang, Yantai Institute of Coastal Zone Research (China); Zhiqiang Gao, Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences (China); Maosi Chen, Colorado State Univ. (United States)
Add To My Schedule

Thermally-enhanced spectral indices to discriminate burn severity in Mediterranean forest ecosystems
Paper 10767-24
Time: 5:30 PM - 7:30 PM
Author(s): Maria del Carmen Quintano, Univ. de Valladolid (Spain); Alfonso Fernández-Manso, Paula García-Llamas, Victor Fernández-García, Jose M. Fernandez-Guisuraga, Elena Marcos, Susana Suarez-Seoane, Leonor Calvo, Univ. de León (Spain)
Add To My Schedule

Correction and prediction of ultraviolet (UV-MFRSR) radiation value based on GARCH model
Paper 10767-25
Time: 5:30 PM - 7:30 PM
Author(s): Wei Zhuo, Runhe Shi, East China Normal Univ. (China); Zhibin Sun, Colorado State University (United States); Wei Gao, East China Normal Univ. (China)
Add To My Schedule

The variation characteristics of PM2.5 in Shanghai and its correlation with meteorological factors
Paper 10767-26
Time: 5:30 PM - 7:30 PM
Author(s): Yunyun Zhou, Deying Zhang, Lan Zheng, Runhe Shi, East China Normal Univ. (China); Maosi Chen, Colorado State University (United States)
Add To My Schedule

Comparative study of the spatial interpolation methods for the Shanghai regional air quality evaluation
Paper 10767-27
Time: 5:30 PM - 7:30 PM
Author(s): Xuanyi Zhang, Runhe Shi, East China Normal Univ. (China); Maosi Chen, Colorado State University,Natural Resource Ecology Laboratory (United States)
Add To My Schedule

Analysis of land use changes and driving factors in Dongying urban area from 2005 to 2015
Paper 10767-28
Time: 5:30 PM - 7:30 PM
Author(s): Baorong Liu, Qiuxian Wang, Ludong Univ. (China); Zhiqiang Gao, Yantai Institute of Coastal Zone Research (China); Wei Gao, Colorado State Univ. (United States); Maosi Chen, USDA UV-B Monitoring and Research Program and Center of Remote Sensing and Modeling for Agricultural (United States)
Add To My Schedule

Simulation of land use/cover change in Shanghai based on SLEUTH model
Paper 10767-29
Time: 5:30 PM - 7:30 PM
Author(s): Lan Zheng, Deying Zhang, Yunyun Zhou, Xuanyi Zhang, Runhe Shi, East China Normal Univ. (China); Maosi Chen, Natural Resource Ecology Laboratory, Colorado State University (United States)
Add To My Schedule

Analysis on land use changes and their driving forces in Weihai City between 2005 and 2015
Paper 10767-31
Time: 5:30 PM - 7:30 PM
Author(s): Hong Sun, Qiuxian Wang, Ludong Univ. (China); Zhiqiang Gao, Yantai Institute of Coastal Zone Research (China); Wei Gao, Maosi Chen, Colorado State Univ. (United States)
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Using remote sensing to assess sustainable development on a Chinese national-level new district
Paper 10767-32
Time: 5:30 PM - 7:30 PM
Author(s): Hua Wan, Guizhou Univ. (China); Zhibin Sun, Colorado State Univ. (United States); Lingbin Yan, Bilige Nari, Guizhou Univ. (China)
Add To My Schedule

Study on extraction of forestry parameters at single-tree level based on 3D laser scanning technology
Paper 10767-33
Time: 5:30 PM - 7:30 PM
Author(s): Wenshu Lin, Shanshan Zhang, Northeast Forestry Univ. (China)
Add To My Schedule

A photon-efficient method based on curve fitting for photon counting 3D imaging lidar
Paper 10767-34
Time: 5:30 PM - 7:30 PM
Author(s): Ling Ye, Guohua Gu, Weiji He, Nanjing Univ. of Science and Technology (China); Wenye YIN, Nanjing University of science and technology (China); Jie LIN, Jian FANG, Nanjing Univ. of Science and Technology (China)
Add To My Schedule

Estimating initial biomass of green tide algae in the South Yellow Sea with aid of UAV and S2A data
Paper 10767-35
Time: 5:30 PM - 7:30 PM
Author(s): Zhiqiang Gao, Yantai Institute of Coastal Zone Research (China); Fuxiang Xu, Weitao Shang, Xiaopeng Jiang, Debin Song, Yantai Institute of Coastal Zone Research (China), Graduate Univ. of Chinese Academy of Sciences (China); Maosi Chen, USDA UV-B Monitoring and Research Program (United States)
Add To My Schedule

Retrieval of snow grain size in Northeast China using MODIS data
(Canceled)
Paper 10767-36
Time: 5:30 PM - 7:30 PM
Author(s):

Cardiovascular and respiratory diseases surveillance around Shanghai Chemical Industry Park based on remote sensing
Paper 10767-37
Time: 5:30 PM - 7:30 PM
Author(s): Chunying Guo, Jiayuan Zhou, Yunyun Zhou, Deying Zhang, East China Normal Univ. (China); Maosi Chen, Colorado State University (United States); Runhe Shi, East China Normal Univ. (China)
Add To My Schedule

The extraction of wetland vegetation information based on UAV remote sensing images
Paper 10767-38
Time: 5:30 PM - 7:30 PM
Author(s): Weitao Shang, Yantai Institute of Coastal Zone Research (China); Zhiqiang Gao, Xiaopeng Jiang, Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences (China); Maosi Chen, USDA UV-B Monitoring and Research Program (United States)
Add To My Schedule

Change of sea surface temperature in the northwest Pacific Ocean over the past decade and its impacts on fisheries
Paper 10767-39
Time: 5:30 PM - 7:30 PM
Author(s): Zhu Tao, Runhe Shi, East China Normal Univ. (China); Zhibin Sun, Wei Gao, Colorado State University (United States)
Add To My Schedule

Monitoring of polluted water in coastal zone using unmanned aerial vehicle remote sensing
Paper 10767-40
Time: 5:30 PM - 7:30 PM
Author(s): Xiaopeng Jiang, Zhiqiang Gao, Weitao Shang, Yantai Institute of Coastal Zone Research (China); Maosi Chen, Colorado State Univ. (United States)
Add To My Schedule

Verification of mountain road hazard susceptibility maps: provincial highway routes 8 and 9 as study area
Paper 10767-41
Time: 5:30 PM - 7:30 PM
Author(s): I-Wen Hsu, Jee-Cheng Wu, National Ilan Univ. (Taiwan)
Add To My Schedule

Regional sea level change prediction based on time-frequency analysis and intelligent algorithm
Paper 10767-42
Time: 5:30 PM - 7:30 PM
Author(s): Guanyu Ma, Qing Zhao, East China Normal Univ. (China); Maosi Chen, Colorado State University (United States)
Add To My Schedule

Simulation of methane emissions from double-rice cropping system in Southern China during the past 50 years by DNDC model
Paper 10767-43
Time: 5:30 PM - 7:30 PM
Author(s): Xiangyi Wang, Zhan Tian, Dongli Fan, Meifang Hou, Shanghai Institute of Technology (China); Yilong Niu, East China Normal Univ. (China); Hanqing Xu, Biao Hu, Shanghai Institute of Technology (China); Runhe Shi, East China Normal Univ. (China); Maosi Chen, Colorado State Univ. (United States)
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Spatial-temporal distribution characteristics of chlorophyll-a in offshore waters of Yantai and Weihai based on GOCI data
Paper 10767-44
Time: 5:30 PM - 7:30 PM
Author(s): Debin Song, Zhiqiang Gao, Jicai Ning, Weitao Shang, Xiaopeng Jiang, Yantai Institute of Coastal Zone Research (China); Maosi Chen, USDA UV-B Monitoring and Research Program (United States), Colorado State Univ. (United States)
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Suitability regionalization of Chinese medicinal yam under the impact of climate change simulated by CMIP5 multi-model ensemble projections
Paper 10767-45
Time: 5:30 PM - 7:30 PM
Author(s): Biao Hu, Shanghai Institute of Technology (China); Zhan Tian, Shanghai Meteorological Bureau (China); Dongli Fan, Hanqing Xu, Shanghai Institute of Technology (China); Yinghao Ji, Univ. Ca' Foscari di Venezia (Italy); Xiangyi Wang, Shanghai Institute of Technology (China); Runhe Shi, East China Normal Univ. (China); Maosi Chen, Colorado State Univ. (United States)
Add To My Schedule

Performance evaluation of forest growth project in Chaohu Lake based on RS and GIS
(Canceled)
Paper 10767-46
Time: 5:30 PM - 7:30 PM
Author(s):

Utility of CrIS/ATMS temperature and humidity profiles to diagnose the atmospheric duct
Paper 10767-47

Time: 5:30 PM - 7:30 PM
Author(s): Yixing Zhang, East China Normal Univ. (China); Xiaojing Hao, China Research Institute of Radio-wave Propagation (China); Yanan Liu, East China Normal Univ. (China); Zhibin Sun, Colorado State University (United States)

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