

Remote Sensing

and

Security + Defence

2019

TECHNICAL PROGRAMME + EXHIBITION GUIDE

Your complete guide to conferences and special events.

Conferences: 9-12 September 2019

Exhibition: 10-11 September 2019

Palais de la Musique et des Congrès
Strasbourg, France

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JOINT PLENARY SESSION MON 15:50 TO 18:15

Security + Defence and Remote Sensing

15:50 to 16:00 **Welcome and Introduction**

Presentation of SPIE Fellowship to

Charles R. Bostater, Florida Institute of Technology (United States) and **Robert J. Grasso**, NASA Goddard Space Flight Ctr. (United States)

Welcome Address and Plenary Speaker Introductions

16:00 to 16:45 **The future of spaceborne radar remote sensing**

Alberto Moreira
German Aerospace Center (DLR) and Karlsruhe Institute of Technology, Germany

16:45 to 17:30 **The U.S. Air Force Office of Scientific Research: opportunities for international collaboration**

D. Brent Morris
USAF European Office of Aerospace Research and Development (United Kingdom)

17:30 to 18:15 **French industry perspective on current and future developments in optronics**

Emmanuel Kling
SAFRAN Electronics & Defense, France

See page 6-7 for details.

TUESDAY 10 SEPTEMBER

SESSION 4

ROOM: LONDRES 1 TUE 8:30 TO 10:00

Oil Films and Water Surface Sensing

Session Chair: **Françoise Viallefont-Robinet**, ONERA (France)

8:30: **Health security and environment capability of slick detection, characterization and quantification in the offshore domain thanks to radar or optical imagery** (*Invited Paper*), Françoise Viallefont-Robinet, Sébastien Angelliaume, Laure Roupioz, Aymeric Mainvis, Karine Caillaud, Thibault Dartigalongue, Pierre-Yves Foucher, ONERA (France); Véronique Miegébielle, Dominique Dubucq, Total E&P (France) [11150-16]

9:00: **Drift and shape of oil slicks on the water surface**, Stanislav A. Ermakov, Ivan A. Kapustin, Olga A. Danilicheva, Aleksandr A. Molkov, Institute of Applied Physics (Russian Federation) [11150-17]

9:20: **A phenomenological model of wave damping due to oil films**, Irina A. Sergievskaya, Stanislav A. Ermakov, Institute of Applied Physics (Russian Federation) [11150-18]

9:40: **Variation of summertime sea surface salinity of the Arctic Ocean during 2010-2018**, Z. K. Wang, Yan Bai, Shujie Yu, Bangyi Tao, Qiankun Zhu, Fang Gong, The Second Institute of Oceanography, SOA (China) [11150-19]

Coffee Break. Tue 10:00 to 10:30

SESSION 5

ROOM: LONDRES 1 TUE 10:30 TO 12:00

Laser Sensing of Water

Session Chair: **Simon Stemmler**, Fraunhofer-Institut für Physikalische Messtechnik IPM (Germany)

10:30: **Development of a time-of-flight laser scanning system for underwater applications** (*Invited Paper*), Simon Stemmler, Christoph S. Werner, Fraunhofer-Institut für Physikalische Messtechnik IPM (Germany); Alexander Reiterer, Fraunhofer-Institut für Physikalische Messtechnik IPM (Germany) and Albert-Ludwigs-University Freiburg/INATECH (Germany) [11150-20]

11:00: **Sea wave dynamics visualization and its interaction with the surface atmosphere by LED mini-lidar**, Tatsuo Shiina, Chiba Univ. (Japan) [11150-21]

11:20: **Subsurface scattering layers detected by the airborne bathymetry lidar with segmented field-of-view receivers**, Bangyi Tao, The Second Institute of Oceanography, SOA (China); Zhihua Mao, State Key Lab. of Satellite Ocean Environment Dynamics (China); Yan He, Shanjiang Hu, Shanghai Institute of Optics and Fine Mechanics (China); Tiancheng Huang, Peng Chen, State Key Lab. of Satellite Ocean Environment Dynamics (China) [11150-22]

11:40: **Ultraviolet fluorescence lidar (UFL) as a high-resolution measurement tool for water quality parameters, used as ground-truth data for Sentinel-2 regional models**, Vadim Pelevin, P.P. Shirshov Institute of Oceanology (Russian Federation); Aleksandr A. Molkov, Institute of Applied Physics (Russian Federation); Sergei Fedorov, Elena Korchemkina, Marine Hydrophysical Institute (Russian Federation) [11150-23]

Lunch/Exhibition Break Tue 12:00 to 13:10

SESSION 6

ROOM: LONDRES 1 TUE 13:10 TO 15:00

Sea Ice and SAR Water Sensing

Session Chair: **Xavier Neyt**, Royal Military Academy (Belgium)

13:10: **Remote sensing of sea ice in the Caspian Sea**, Olga Y. Lavrova, Space Research Institute (Russian Federation); Marina I. Mityagina, Alexey Ya Strochkov, Space Research Institute of the RAS (Russian Federation) [11150-24]

13:40: **SAR analysis of the ice loss by marine-terminating ice tongues in polar environment**, Fiorigi Flavio Parmiggiani, Istituto di Scienze dell'Atmosfera e del Clima (Italy); Miguel Moctezuma-Flores, Univ. Nacional Autónoma de México (Mexico); Lorenzo Guerrieri, Istituto Nazionale di Geofisica e Vulcanologia (Italy) [11150-25]

14:00: **Statistical and dynamical properties of ocean eddies in Fram Strait and near Svalbard from spaceborne SAR observations**, Igor Kozlov, Marine Hydrophysical Institute (Russian Federation) and Russian State Hydrometeorological Univ. (Russian Federation); Larisa Petrenko, Marine Hydrophysical Institute of RAS (Russian Federation); Evgeny Plotnikov, Marine Hydrophysical Institute (Russian Federation) [11150-26]

14:20: **Onsite helicopter-borne high-resolution image acquisition and mosaicking for investigation of drifting Arctic sea ice**, Chang-Uk Hyun, Joo-Hong Kim, Hyangsun Han, Hyun-Cheol Kim, Korea Polar Research Institute (Korea, Republic of) [11150-27]

14:40: **CO2 fluxes in the marine atmospheric boundary layer for hurricane conditions on the base of SAR images of sea surface**, Daniil Sergeev, Yuliya Troitskaya, Galina Balandina, Maxim Vdovin, Institute of Applied Physics (Russian Federation) [11150-28]

Coffee Break. Tue 15:00 to 15:30

SESSION 7

ROOM: LONDRES 1 TUE 15:30 TO 17:50

Satellite and In-situ Sensing

Session Chair: **Guido Masiello**, Univ. degli Studi della Basilicata (Italy)

15:30: **Daytime sea surface temperature retrieval using short-wave infrared channel(s)**, Prabhat K. Koner, Univ. of Maryland, College Park (United States) [11150-29]

15:50: **Interannual Vistula Lagoon outflow properties variability by remote sensing and oceanographic experiments data**, Evgeny Krayushkin, Space Research Institute (Russian Federation); Olga Y. Lavrova, Ksenia R. Nazirova, Space Research Institute of the RAS (Russian Federation) [11150-30]

16:10: **Identification of potential future glacial lake sites using high-resolution TanDEM-X DEM**, Ankur Pandit, Indian Institute of Technology Bombay (India) [11150-66]

16:30: **The Caspian Sea level decrease in the last decade: the Volga River contribution**, Ayoub Moradi, Iranian Space Research Ctr. (Iran, Islamic Republic of); Frédéric Frappart, Lab. d'Etudes en Géophysique et Océanographie Spatiales (France) [11150-32]

16:50: **Quality evaluation of Chinese ocean colour satellite images of coastal zone**, Chao Wang, Aerospace DongFangHong Satellite Co., Ltd. (China) and Univ. of Space Engineering (China); Bin Wu, Keli Zhang, Hongzhi Zhao, Lili Wang, Jun Zhu, Aerospace DongFangHong Satellite Co., Ltd. (China) [11150-33]

17:10: **Integration in situ measurement and medium resolution imagery to develop digital health chart; preliminary study of coral reefs on small islands, Spermonde Archipelago Indonesia**, Nurjannah Nurdin, Chair Rani, Abd Rasyid Djalil, Hasanuddin Univ. (Indonesia); Teruhisa Komatsu, The Univ. of Tokyo (Japan); Mahatma Lanuru, Hasanuddin Univ. (Indonesia) [11150-34]

17:30: **Water quality parameters estimation using remote sensing in the vicinity of Tangier-Ksar Sghir region, north of Morocco**, Imane Bourouhou, Univ. Abdelmalek Essaâdi (Morocco) [11150-35]

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