



**Joint International Surface Working Group and
Satellite Applications Facility on Land Surface Analysis
Workshop**

IPMA, Lisbon, 26-28 June 2018

Program

| 26 Jun | | |
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| 14:00 | Opening - Welcome & Objectives of Workshop | |
| Session 1: Selected Topical Talks | | |
| 14:10 | Camille Birman | Recent developments on land surface analysis for NWP at Météo France |
| 14:30 | Martin Lange | Developments in surface analysis schemes at DWD . |
| 14:50 | Sujay Kumar | Characterizing the systematic and random errors in soil moisture estimates from land surface models and satellite retrievals |
| 15:10 | Coffee Break | |
| 15:40 | Na-Yeon Park presented by: Jun-Dong Park | Current Status and Future plan of KMA Satellite Products for Hydrology Applications |
| 16:00 | Joaquín Muñoz-Sabater | ERA5-Land: an improved version of the ERA5 reanalysis land component |
| 16:20 | Isabel Trigo | LSA-SAF: now and in the future. |
| 16:50 | Plenary 1: Goals for ISWG | |
| 17:00 | Poster Session & Welcome Drinks | |
| 18:30 | Adjourn | |

27 Jun

Session 2: Land Surface Modeling and Assimilation

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| 9:00 | Clement Albergel | ERA-5 and ERA-Interim driven ISBA land surface model simulations and reanalysis: Which one performs better? |
| 9:20 | Gianpaolo Balsamo | Review of satellite-based remote sensing and in-situ observations to inform Earth Surface Modelling |
| 9:40 | Emanuel Dutra | Land surface downscaling using a spatially and temporally varying lapse rate |
| 10:00 | Coffee Break & Continued Poster Viewing | |
| 10:30 | Min Huang | Improving air quality modeling on process level via better representation of the land surface states |
| 10:50 | Yasutaka Ikuta | Assimilation of Satellite Soil Moisture Content in Operational Local NWP System at JMA |

Session 3: Assimilation Methods

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| 11:10 | Jean-Christophe Calvet | Sequential assimilation of Copernicus vegetation products for better constraining soil-plant parameters and variables in the ISBA land surface model |
| 11:30 | Yohei Sawada | Ecohydrological Land Analysis: Assimilating satellite microwave observations into a land surface model to simultaneously simulate soil moisture and vegetation dynamics |
| 11:50 | Tomas Landelius | Towards a 3D EnKF for surface data assimilation of raw satellite radiances |
| 12:10 | Lunch & Group Photo | |
| 13:10 | Cristina Lupu | Surface skin temperature and its impact on satellite data assimilation at ECMWF |
| 13:30 | Samantha Pullen | Land surface data assimilation at the Met Office and developments in snow depth analysis |
| 13:50 | Zied Sassi | Study of satellite observations synergy in order to improve surface temperature in NWP |

Session 4: Climate Services and User Requirements

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| 14:10 | Gabriel Lellouch | Long-term archives of land surface albedo products through the EUMETSAT/LSA-SAF: product portfolio and project development plans |
| 14:30 | Javier García-Haro | The LSA-SAF vegetation suite: FVC, LAI and FAPAR |
| 14:50 | Frank-Michael Goettsche | Derived Land Surface Temperature (DLST) product for MSG/SEVIRI |
| 15:10 | Coffee Break & Poster Viewing | |
| 15:30 | Benjamin Bechtel | The full temperature cycle – towards a combined annual and diurnal temperature model |
| 15:50 | Bostjan Muri | Usage of LSA SAF Products for Expert End-Users and Their Potential Applications in Specific Weather Situations |
| 16:10 | Carlos Jimenez | All-weather land surface temperature estimates from microwave satellite observations, over several decades and real time: methodology and comparison with infrared estimates |

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| 16:30 | Elizabeth Good | The EUSTACE project: delivering global, daily information on surface air temperature |
| 16:50 | Maria Jose Escorihuela | Low Frequency Passive Microwave User Requirement Consolidation Study |
| 17:10 | Darren Ghent | Lessons learned from ESA Due GlobTemperature and plans for ESA LST CCI |
| 17:30 | Plenary 2: Requirements for Climate and Assimilation Science | |
| 18:00 | Adjourn | |

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| 20:00 | Workshop Dinner | |
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| 28 Jun | | |
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| Session 5: Soil moisture, surface fluxes, radiative products | | |
| 9:00 | Susanne Mecklenburg | The contribution of L-band observations to characterising land-atmosphere interactions |
| 9:20 | Moritz Link | Comparison of SMOS, SMAP, ASCAT and AMSR2 Level-1 data in terms of their soil moisture information content |
| 9:40 | Rolf Reichle | Improving the SMAP Level-4 Soil Moisture Product: The Good, the Bad, and the Ugly |
| 10:00 | Coffee Break & Poster Viewing | |
| 10:30 | Jostein Blyverket | Towards creating a ESA CCI Level 4 root zone soil moisture product using land surface data assimilation |
| 10:50 | Nicolas Ghilain | LSA-SAF ET&SF – version 2: an improved monitoring of evapotranspiration & surface heat fluxes thanks to the assimilation of vegetation and land surface temperature |
| 11:10 | Kaniska Mallick | Evapotranspiration mapping across an aridity gradient in conterminous US by combining thermal remote sensing with Penman-Monteith and Shuttleworth-Wallace model |
| 11:30 | Lunch | |
| Session 6: Land surface temperature, Forward Modeling and Emissivity | | |
| 12:50 | Chu-Yong Chung | Surface products of GK-2A |
| 13:10 | Bob Su | Microwave observation and modelling of radiative and heat-water transfer processes on the Tibetan Plateau |
| 13:30 | Tim Hultberg | A linear programming (LP) approach to the retrieval of hyperspectral infrared surface emissivity |
| 13:50 | Plenary 3: Coordination of Land Observations & Workshop Closing | |
| 14:40 | End of Workshop | |

Posters

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| P1 | Caglar Kucuk | Towards Understanding Dynamics between Vegetation and Secondary Water Resources in Semi-Arid Regions via Remote Sensing |
| P2 | Joseph Santanello | The Importance and Current Limitations of Planetary Boundary Layer (PBL) Retrieval from Space for Land-Atmosphere Interactions Studies |
| P3 | David Stevens | Land surface model performances with high resolution earth observation data |
| P4 | Emanuel Dutra | Impact of snow data assimilation on river discharge |
| P5 | Donghyun Jin | The Snow/Sea-ice detection based Dynamic Wavelength Warping method using Himawari-8/AHI data |
| P6 | Jae-Hyun Ryu | Evaluation of drought impact under different agricultural managements in South and North Korea using satellite remote sensing |
| P7 | Kyeong-Sang Lee | Estimation of Land Surface Albedo from Himawari-8/AHI data |
| P8 | Kyung-Ae Park | Development of Sea Surface Temperature Retrieval Algorithm for Geo-KOMPSAT-2A/Advanced Meteorological Imager |
| P9 | Kyung-Ae Park | Development of Sea Surface Currents Retrieval Algorithm for Geo-KOMPSAT-2A/Advanced Meteorological Imager |
| P10 | Young-Heon Jo | Four Potential Observations of Ocean Environment Changes Using GK-2A |
| P11 | Anke Duguay-Tetzlaff | Regional Land Fluxes TCDR within the EUMETSAT Climate Monitoring SAF: Surface Radiation Budget |
| P12 | José Miguel Barrios | Daily Evapotranspiration at sub-kilometer spatial resolution by combining surface energy balance modelling and statistical downscaling |
| P13 | Alirio Arboleda | An improved version of the LSA-SAF evapotranspiration and new surface heat fluxes products |
| P14 | Chloe Vincent | Evolution of the LSA-SAF surface albedo products derived from METOP/AVHRR and MSG/SEVIRI |
| P15 | Gabriel Lellouch | Recent advances in the retrieval of solar surface irradiance from EUM satellite data in the LSA-SAF project |
| P16 | Javier García-Haro | Operational LSA SAF 10-day SEVIRI/MSG GPP product (MGPP): overall performance and inter-comparison with similar products |
| P17 | João Paulo Martins | All weather LST product comparison |
| P18 | Freya Aldred | Climate change and Urban Heat Islands |
| P19 | Youn-Young Choi | Development of GK-2A land surface temperature retrieval algorithm using Himawari-8/AHI |
| P20 | Robert Knuteson | A new global infrared emissivity dataset: Combined ASTER MODIS Emissivity of Land (CAMEL) |
| P21 | Virgílio Bento | An assessment of the contribution of moisture (VCI) and temperature (TCI) condition to vegetation health index (VHI) |
| P22 | Weidong Xu | Major advance in geostationary fire radiative power (FRP) retrieval over Asia and Australia stemming from use of Himawari-8 AHI |
| P23 | Julia Stoyanova | Joint use of Meteorological Modeling and LSA SAF products for diagnoses and forecast of vegetation state and fire danger over South-eastern Europe |
| P24 | Chris Mannaerts | ITC experiences with LSASAF data steam uses in the African education and research context. |