



## DUE GlobTemperature User Consultation Meeting #4 Programme

### Tuesday 7<sup>th</sup> June

**08:00 – 09:15** Registration Open

**09:15 – 09:30** Welcome and News [JR + SP + DG]

**09:30 – 11:00** Updates by Project Partners on GlobTemperature activities [Chair – JR]:

- User Requirements [CB]
- New LST datasets [DG, AP]:
  - Single-sensor datasets – MODIS, GOES, MTSAT
  - Merged Product
  - CDR
- Validation [FG]:
- Website, Data Portal, and Tools [JB]
- Plenary discussion [Panel – DG, CB, IT, JB, FG]

**11:00 – 11:30** Coffee break

**11:30 – 13:00** Breakout Session [Chairs – CB, IT, DG]

- Feedback on User Requirements
- What is missing in the current dataset and tool provision
- Future proofing for the products, tools, and data portal
- Providing a platform to move forward to future products and projects

**13:00 – 14:00** Lunch

**14:00 – 15:30** User Case Study Presentations [Chair – DG]

- Surface temperature reconstruction for climate [E. Good, Hadley Centre]
- Driving of sea-ice state in a coupled ocean model [T. Rasmussen, DMI]
- Soil moisture assessment [T. Tagesson, U. Copenhagen]
- Assimilation of LST in NWP [B. Candy, Met Office]

**15:30 – 16:00** Coffee break

**16:00 – 17:00** Interactive session on LST uncertainties [Chair – CB]

- Presentation on uncertainties and validating them [DG + CB]

- Participant experience of using uncertainties
- Small group exercise on LST uncertainty evaluation

17:00 – 19:00 Poster session

20:00 – 22:00 Non-hosted dinner

### Wednesday 8<sup>th</sup> June

09:00 – 11:00 Presentations by LST users [Chair – FG]

- Application of Landsat-8 satellite imagery and GIS to evaluate spatial variability of land surface temperature over urban areas [J. Walawender, IMGW-PIB, Poland]
- Retrievals of Land surface temperature using LANDSAT8 and ASTER data over Italian volcanic areas: comparison of satellites and in situ measurements [F. Buongiorno, INGV, Italy]
- Comparison of cryosphere temperature metrics (lapse rates, freezing isotherms) derived for the Karakoram from L3 MODIS and (A)ATSR(2) data products [N. Forsythe, U. Newcastle, UK]
- Mind the cloud gap: annual cycle parameters as continuous land surface temperature climatology [B. Bechtel, U. Hamburg, Germany]
- Simultaneous retrieval of dust aerosol properties and skin surface temperature from IASI [V. Capelle, LMD/CNRS-Ecole polytechnique, France]
- Performance of an improved TES algorithm [M. Pivovarnik, Academy of Sciences of the Czech Republic]
- Land-atmosphere coupling: How satellite LST data contribute to drought assessment and yield prediction [J. Stoyanova, National Institute of Meteorology and Hydrology, Bulgaria]
- Status of Land Surface Temperature Product for JPSS and GOES-R missions: Towards an enterprise LST algorithm and production [Y. Rao, U. Maryland, USA]

11:00 – 11:30 Coffee break

11:30 – 12:30 Combined activity with LSA SAF community [Chair – AP]

- Land Surface Temperature in the EUMETSAT LSA SAF: current service and perspectives [I. Trigo, IPMA]
- The LSA SAF vegetation products [J. García-Haro, U. Valencia]
- Fires and Fire Radiative Power thermal information from the LSA SAF [M. Wooster, KCL]
- The use of SEVIRI data and products for Evapotranspiration estimation [N. Ghilain, RMIB]

12:30 – 12:45 Final remarks [Chair – JR]

12:45 – 13:30 Departure / Lunch for those attending the ILSTE-WG meeting

13:30 – 14:30 4<sup>th</sup> General ILSTE-WG meeting [Chairs – JR + DG]

## Posters

<b>ASTER – night TIR time series over the Indonesian Lusi eruption site</b>	<b>A. Amici – INGV, Italy</b>
<b>Validation of satellite-retrieved LST products with radiometric in-situ measurements over Lake Constance</b>	<b>F. Goettsche – KIT, Germany</b>
<b>Remote Sensing and GIS based analysis of Surface Urban Heat Islands (SUHI) effects on Urban Air Pollution (UAP), in Metropolis Tehran, Iran</b>	<b>S. Alavipanah, U. Tehran, Iran</b>
<b>Impacts of changes on climate, land use, land cover state in Nigeria</b>	<b>S. Aworinde – U. Lagos, Nigeria</b>
<b>Temperature-dependency of aerosol optical depth over southeastern US</b>	<b>T. Mielonen – FMI, Finland</b>
<b>A fresh look at satellite data archives: dynamics of volcanic activity using geostationary Land Surface Temperatures</b>	<b>E. Pavlidou – U. Twente, Netherlands</b>
<b>The SPARSE model for the prediction of water stress and evapotranspiration components from thermal infra-red data and its evaluation over irrigated and rainfed wheat</b>	<b>V. Rivalland – CESBIO, France</b>
<b>Validation of the S-NPP VIIRS land surface temperature product with ground data from an autonomous multiangular system</b>	<b>C. Coll – U. Valencia, Spain</b>
<b>Approach to retrieve Land Surface Emissivity and Land Surface Temperature in Areas of Highly Dynamic Emissivity using Thermal Infrared Data</b>	<b>S. Heinemann – U. Bonn, Germany</b>
<b>Precision of mono- and split window algorithms for LST estimation from AVHRR</b>	<b>C. Frey - DLR, Germany</b>
<b>Land surface temperature patterns in urban areas of Poland during hot weather assessed using multi-year ENVISAT/AATSR and LANDSAT/TM data</b>	<b>M. Hajto – IMGW, Poland</b>
<b>Enhanced Retrieval of Thin Sea Ice Thickness from Thermal Remote Sensing</b>	<b>I. Appel – EarthLink, USA</b>
<b>EUSTACE: estimating global, daily air temperature using satellite skin temperature retrievals</b>	<b>N. Rayner – Met Office, UK</b>
<b>Surface Temperature as the climate change indicator – importance of drought monitoring</b>	<b>K. Dabrowska-Zielinska – IGIK, Poland</b>
<b>Enhanced Monitoring of the Sub-daily Thermal Variations using Satellite Remote Sensing Products</b>	<b>S. Cheval – U. Bucharest, Romania</b>

**Parameterization of light-use efficiency for daily GPP estimation over Euroafrica using SEVIRI/MSG data**

**B. Martinez – U. Valencia, Spain**

**Improving Land Surface Temperature retrievals over mountainous regions**

**V. Bento – U. Lisbon, Portugal**

**Towards a Combined Surface Temperature Dataset for the Arctic from the Along-Track Scanning Radiometers (ATSRs)**

**E. Dodd – U. Leicester, UK**

**A physically-constrained calibration database for Land Surface Temperature using infrared retrieval algorithms**

**J. Martins – IPMA, Portugal**

**Spatial Re-construction of daily MODIS LST maps**

**W. Bogacki - Hochschule Koblenz, Germany**