

The European Commission's science and knowledge service Joint Research Centre



EUROPEAN UNION SATELLITE CENTRE Analysis for decision making



→ 2019 CONFERENCE ON BIG DATA FROM SPACE

Turning data into insights

19-21 February 2019 | Munich, Alte Kongresshalle, Germany

BACKGROUND

Big Data from Space refers to the massive spatiotemporal Earth and Space observation data collected by a variety of sensors - ranging from ground based to space-borne - and the synergetic use of data coming from other sources and communities. This domain is currently facing sharp development with numerous new initiatives and breakthroughs from intelligent sensors' networks to data science application. These developments are empowering new approaches and applications in various and diverse domains influencing life on earth and societal aspects, from sensing cities, monitoring human settlements and urban areas to climate change and security.



Currents in the Pentland Firth

Between the Scottish mainland and the Orkney island of South Ronaldsay, the water flows at very high speed. The German Aerospace Center (DLR) TerraSAR-X and TanDEM-X radar satellites make it possible to identify and analyse these currents from space.

OBJECTIVES

The main objectives of the BiDS'19 Conference are:

- Focus on new paradigms of data intelligence addressing the entire value chain: data processing to extract information, the information analysis to gather knowledge, and knowledge transformation in value;
- Maximise the uptake and impact of multi-source space data;
- Promote the use of platforms and analytical methods to maximise the value extracted for scientific exploration and discovery, societal benefits, commercial exploitation and operational applications;
- Bring together major European actors, including research, industry, institutions, and users, to strengthen the communication and transfer of requirements, methods and technologies, and to reinforce an interdisciplinary approach;
- 5) Promote research and applications in innovative/ disruptive data analysis methods;
- 6) Advance the upscale of new solutions from R&I to operational use (e.g. for the security domain);
- 7) Promote cross-fertilisation with similar works in other data intensive domains (e.g. high-energy physics, microbiology, social media, etc.).

THEMES

We invite contributions to the 2019 Big Data from Space Conference on all the aspects related to data volume, velocity, variety, veracity and value, across all the steps of the (big) data lifecycle:

1. Data Acquisition

- On-board data handling functions
- Data transfer methodologies
- Satellite Telecommunication and GNSS systems
- Sensors' networks and RPAS
- New networking paradigms

2. Data Organisation

- Data storage and data centres infrastructures
- Data discovery, access and dissemination methods
- Data preservation and retrieval
- Data openness, privacy and security

3. Data Analysis

- Computing platforms and services
- Exploitation platforms (thematic platforms, mission platforms, etc.)
- Data analytics methods and algorithm
- Visualisation tools
- Data Science

4. Information Provision

- Data quality, provenance and trust
- Linked data, heterogeneous information sources and semantics
- Crowdsourcing and citizen science

The aspects of Interoperability and Standardisation are considered as well, and are applicable for all the steps!



ORGANISATION

The conference will offer several session formats:

- Keynote speakers
- Oral sessions
- Poster session
- Demos and Exhibition

DEADLINES

Paper submission	15 October 2018
Notification of Acceptance	15 December 2018
Preliminary Programme	15 January 2019
Final Paper Submission	15 January 2019
Registration	10 February 2019

REGISTRATION AND ABSTRACT SUBMISSION

Authors are invited to submit a full 4-pages paper for oral and poster sessions. All submissions will be peer-reviewed by the Conference Program Committee.

Further information and guidelines for paper submission and conference registration can be found at:

https://www.bigdatafromspace2019.org

Jointly organised by ESA, SatCen, JRC hosted by DLR



