



9th December 2019: Icebreaker Reception, [Flanagan's pub, Frascati](#) (Via Felice Grossi Gondi,6, 00044 Frascati RM, Italy from 18:00)

Day 1: 10th December 2019		
Time	Title	Speaker
8.30	Registration Opens	
9.30	Welcome and Introduction	Charlotte Bishop, KSAT & GRSG Chairman with Ola Gråbak, ESA
9.45	<i>Keynote: New directions in remote sensing for geology and solid Earth geophysics</i>	<i>Gordon Campbell - ESA</i>
New Technology and Innovation – Nick Kellerman, Terrabotics		
10.15	The Hyperspectral PRISMA Mission for Earth Observation	Rocchina Guarini – ASI, Italy
10.35	Identifying and Geo-Locating Very Small Rocky Outcrops Containing Rare Earth Element Minerals Using an EPIC Satellite Constellation	Stephen Achal – 4PiLab, Canada
10.55-11.25	Coffee – Exhibition & Posters	
Mineral Exploration – Session Chair: David Coulter, Consulting Geologist		
11.25	Absorption peak shift mapping by using hyperspectral data in Goldfield and Cuprite, Nevada	Shuho Noda – JOGMEC, Japan
11.45	A machine learning approach to mineral mapping of iron ore front using hyperspectral remote sensing	Rosa Elvira Correa Pabon – Vale, Brazil
12.05	Accuracy assessment of hydrothermal alteration zones derived by ASTER images	Fardad Maghsoudi – ITC, Netherlands
12:25	Integration of Spectral and Conventional Techniques for the Mineral Exploration of Paleo-Proterozoic Au-Cu-Mo Mineralization in Brazil	Diego Ducart – UNICAMP, Brazil
12.45 – 14:15	Lunch + Exhibition + Posters + ESA Sentinel Workshop: Introduction to the Sentinels	
Geological Mapping – Stephen Grebby, University of Nottingham		
14.15	Airborne hyperspectral survey over the Northern Cape Province, South Africa, to assist with geological mapping	Janine Cole – Council for Geoscience, South Africa
14.35	Exploring for future EGS resources using bathymetry, airborne LiDAR and UAV-photogrammetry	Chris Yeomans – University of Exeter, UK
14.55	Geological mapping by thermal inertia derived from ASTER TIR data	Yasushi Yamaguchi – University of Nagoya, Japan
15.15 - 15.45	Coffee – Exhibition & Posters	
Oil and Gas – Richard Evers, Shell		
15.45	Towards an automatic algorithm for natural oil slick delineation using high resolution open imagery	Cristina Vrinceanu – University of Nottingham, UK
16.05	Monitoring Oil Fields from Space	Deborah Humphreville – Maxar, UK
16.25	AGM, update, open discussion (All delegates)	
17.30	Wine Reception – Conference Venue (Included in Delegate Entry)	

Day 2: 11th December 2019		
Time	Title	Author
8.30	Registration Opens	
9.30	Welcome and Introduction	Charlotte Bishop, KSAT & GRSG Chairman
9.40	<i>Keynote: Pixels to the people : making Earth Observation accessible</i>	<i>Ed Parsons – Google, UK</i>
Oil and Gas – Huma Irfan, UCL/Birkbeck, University of London		
10.10	New Frontiers In Monitoring Facilities for GHG Emissions From Space: Second Generation Satellites And Analytics	Jean-Francois Gauthier – GHGSat, Canada
10.30	What is multi-mission oil spill response?	Charlotte Bishop – KSAT, Norway
10.50 - 11.20	Coffee – Exhibition & Posters	
New Technology and Innovation – Marc Goossens, Geosense		
11.20	Capabilities of new generation of EO Cubesats vs. conventional Earth Observation Satellites	Dietmar Backes – University of Luxembourg
11.40	Title TBC	Katie Routledge – Terrabotics, UK
12.00	Lithologic and Mineral mapping using spaceborne GF5 and Tiangong-1 hyperspectral imagery data: example from the Baixianishan area, Beishan, Gansu province, China	Lei Liu - Chang'an University, China
12.20	Helicopter-borne remote sensing for geological mapping in the Arctic terrain	Sara Salehi – GEUS, Denmark
12.40 - 14.10	Lunch + Exhibition + Posters + ESA Sentinel Workshop: Geological Applications	
Geohazards and Risk – Richard Teeuw, University of Portsmouth		
14.10	Advanced Digital Image Correlation analysis of satellite images for landslide displacement monitoring	Riccardo Muzi – University of Rome, Italy
14:30	Evaluating riverbank erosion and form roughness through the use of Terrestrial Laser Scanning.	Rebecca Collins – University of Worcester, UK
14.50	Is this the end of field mapping?	Andrew Hart – Atkins, UK
15.10	Coastal Shoreline Extraction from Very High Resolution (Satellite-Borne) Synthetic Aperture Radar Imagery	Daithi Maguire – University of Galway Republic of Ireland
15:30 – 16.00	Coffee – Exhibition & Posters	
Spectral Mapping – Dan Taranik, Exploration Mapping		
16.00	Noise Separation Within Hyperspectral Data via the Discrete Wavelet Transform	George Leblanc – NRC-CNRC, Canada



16:20	An Evaluation of Airborne Imaging Spectrometers for CH4 Mapping in the Shortwave Infrared: Implications of Band Positioning, Spectral Sampling and Noise	Rebecca Scafutto – UNICAMP, Brazil
16.40	Incorporating band selection in the spatial selection of spectral endmembers	Benoit Rivard – University of Alberta, Canada
17.00	RapidFire Session!	Charlotte Bishop as MC
19.30	Conference Gala Dinner Villa Del Cardinale from 7.30 (additional Charge)	

Day 3: 12 th December 2019		
Time	Title	Author
09.00	Registration Opens	
09.30	Welcome and Introduction	Charlotte Bishop, KSAT & GRSG Chairman
09.40	<i>Keynote: New and Forthcoming ISS Remote Sensing Missions: A Global Perspective</i>	Carlos Roberto Souza Filho – UNICAMP, Brazil
InSAR – Andries Botha, Southern Mapping		
10.10	Subsidence and lateral movement at Volcán de Colima revealed by Sentinel-1 SqueeSAR® data	Philippa Mason – Imperial College, UK
10.30	Efficient and automated Sentinel-1 TOPS processing in response to the July 2019 Ridgecrest earthquake in California, USA	Stewart Wyseman – PCI Geomatics, Canada
10.50	(Almost) 30 years of InSAR data over London	Jennifer Scouler – Imperial College, UK
11.10-11.40	Coffee – Exhibition & Posters	
Geological Mapping – Tom Gmerek, SRK		
11.40	The use of earth observation and satellite InSAR data to detect, map and monitor natural hazards	Finlay McQuistan - CGG NPA, UK
12.00	Predictive Spectral Lithological Mapping, Geomorphology and Geospatial Correlation of Structural Lineaments in Bornu Basin, Northeast Nigeria	Aminu Abdullahi Isyaku – University of Portsmouth, UK
12.20	Detection and monitoring of illegal gold mining in rainforest, Colombia	Nasos Agyriou – University of Portsmouth, UK
12.40	Application of remote sensing for mapping mining waste and Identification of acid mine drainage, case study Sarcheshmeh Mine, Kerman Province, Iran	Mahdieh Hosseinjanizadeh – Graduate University of Advanced Technology, Iran
13.00-14.00	Lunch	
Geohazards – Andrew Hart, Atkins		
14.00	Uses of free satellite data and Open Data Cubes for disaster risk reduction applications in small island states	Richard Teeuw – University of Portsmouth, UK
14.20	Regional scale landslide mapping in Greenland	Marie Keiding – GEUS, Denmark
14.40	Remotely sensed structural mapping for geothermal exploration in Central America	Alina Ermertz – BGR, Germany
15.00	Final Session: Exploring New Frontiers – Interactive discussion	Charlotte Bishop, GRSG Chairman
15.20	Technical Conference Close	
	Afterglow: Location TBC (cash bar)	
13th December 2019: Colli Albano Field trip 9.30-4pm (20 euro, sign up required in advance)		

Lunchtime Workshop and Demos:

Day 1:

Lunchtime 13.15 – 14.00: **ESA Sentinel Workshop: Use of EO for Geology** ([Main Conference Room](#))

Day 2:

Lunchtime 13.15 – 14.00: **ESA Sentinel Workshop: Land Subsidence with Sentinel-1: an InSAR demo with Open Tools using RUS service** ([Main Conference Room](#))

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