



T45.5 - Unmanned aerial vehicles (UAV)-based technologies for geology and Earth sciences / Applications of X-ray computed tomography in the Earth Sciences *Date* **Tuesday, 30 August 2016** *Time* **14:00** *to* **15:30**
Chair *Room* **Westin - Prince Edward/Schappen**

Times		Paper # Title	Speaker
14:00	14:15	2613 New capabilities of aeromagnetic methods based on unmanned aerial vehicle for monitoring of geodynamic processes	Миссис Victoria Kurmaeva
14:15	14:30	1920 THE AEROMAGNETIC SURVEY USING NON-MAGNETIC UNMANNED AERIAL PLATFORM IN KALUGA REGION (RUSSIA)	Dr Sergey Cherkasov
14:30	14:45	756 Role of Unmanned Aircraft and Sensor Miniaturization in Geology	Dr. Marc Goossens
14:45	15:00	2093 Mineral quantification at the nanoscale by combining synchrotron radiation x-ray tomography, fluorescence and diffraction	Dr. Jussi-Petteri Suuronen
15:00	15:15	4557 Determination of Hematite and Magnetite Attenuation Coefficients for the Optimisation of X-ray Computed Tomography Scanning Resolution	Mr. Lunga Bam
15:15	15:30	4412 Use of drones for aeromagnetic surveys; an overview	Dr. Marina Diaz Michelena

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16:00	16:15	4286 X-ray tomography of cut and polished diamonds and gemstones	Dr. Anton Du Plessis	
16:30	16:45	5058 Determination of the amount of carcinogenic erionite in an ignimbrite using X-Ray Microtomography	Dr. H. Evren Çubukçu	
16:45	17:00	3768 Improving the beneficiation process of scheelite ores using X-ray tomography	Mr Stephan le Roux	
17:00	17:30	801 Femtosecond laser ablation – ICP mass spectrometry: a powerful high-resolution method for in-situ trace element and isotope ratio measurements in climate geochemistry	Dr. Klaus Jochum	Keynote
17:30	17:45	1423 Discrimination of danburite from different deposits by chemical components: a femtosecond LA-ICP-MS study	Dr. Le Huong	

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	4606 An application of UAV for coastal mapping, east coast of Korea	Dr. baeck oon kim
	4494 Synergy of Laser-Induced Breakdown Spectroscopy and micro-Computed Tomography for volume distribution of Pt in minerals	Dr. Tomas Zikmund
	3761 Genetic implications of Gold grain morphology in Witwatersrand carbon seam facies: New insights from non destructive 3D X-ray tomography	Dr. Anton Du Plessis

Times		Paper # Title	Speaker	
08:00	08:15	4827 Complex petrophysical investigation of pannonian-miocene shales – preliminary results of acoustic anisotropy measurements	Mr. Péter János Koroncz	
08:15	08:30	5501 Three dimensional distribution of metal content in pyrite	Dr. Lingli Zhou	
08:30	08:45	4567 Digital Macroscopy in Earth Sciences	Mr. Michael Doppler	
08:45	09:15	3541 Geological Applications of Atom Probe Tomography	Dr. Ian Holton	Keynote
09:15	09:30	1045 STXM-NEXAFS: applying a new technique which helps to unravel the mystery of rock varnish	D.S. Macholdt	
09:30	09:45	2041 X-rays for earth science - Adding new dimensions to the analysis of mineralogical samples	Dr. Uwe König	
09:45	10:00	4452 Investigating pegmatite hosted gem quality garnet and tourmaline by selfFrag liberation	Mr. Nicolaas Steenkamp	

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10:30	10:45	3670 Synchrotron light applied to ore geology	Dr. Bjorn Von Der Heyden
10:45	11:00	1343 Applications of scanning electron microscopy in Mineral Nanomaterials	Dr. Li Chen
11:00	11:30	2154 The Exploration of Mars With the ChemCam LIBS Instrument and the Curiosity Rover	Dr. Nathan Bridges Keynote
11:30	11:45	3321 Laser Ablation Molecular Isotopic Spectroscopy (LAMIS)	Dr. Alex Bol'shakov
11:45	12:00	3136 Claystone as a Potential Host Rock: Scale-Dependent Observations in X-ray CT, Mineralogy and Geomechanics	Thomas Paul

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14:00	14:15	3767	Laser induced breakdown spectroscopy 2D mapping combined with 3D X-ray tomography: first results	Dr. Anton Du Plessis
14:15	14:30	5121	Toward real-time geochemical analysis in the field: Provenance determination and correlation studies of carbonates using handheld LIBS	Prof. Richard Hark
14:30	14:45	2317	An Investigation into the Efficacy of Elemental Distribution Mapping using Hand Held Laser-Induced Breakdown Spectroscopy for the Qualitative Characterisation of Geological Materials.	Mr. Andrew Somers

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16:00	16:15	5081 Handheld LIBS for precious mineral exploration: Prospecting for gems, conflict minerals, and diamond kimberlites	Dr. Russell S. Harmon
16:15	16:30	5239 SmartLab – a new concept of global geological laboratory service	Dr. Ferenc Fedor

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	3622 Role of backstop indenter shape on the evolution of curved thrust traces in contractional orogens: An experimental investigation	Ms. Mansi Jain
	2025 Insight into the use of ion beam based techniques for energy related issues in earth sciences	Dr. Nelly Toulhoat
	4867 A NEW METHODOLOGY FOR MICROFOSSILIFEROUS RECOVERY: THE USE OF THE EQUIPMENT SELFRAG	Mr. Guilherme Caixeta
	4960 Preservation technique for fossil fish and leaf impressions in papyraceous shale, from the Quiricó Formation, Lower Cretaceous from São Francisco basin, Sate of Minas Gerais, Brazil	Ms. Amanda Moreira Leite
	1067 Coupling tomography techniques for ore characterisation in leaching studies	Dr. Megan Becker
	4849 Preliminary study of altered carbonatites from Catanda, Angola	Dr. Krystyna Wolkowicz
	417 Determination of Lanthanides and trace elements in geological samples using Inductively Coupled Plasma Mass Spectrometry (ICPMS) Technique.	Dr. Manik Chandra Saha
	2046 SumXcore technology to improve the analysis of geological materials	Dr. Uwe König