

## Digital Earth 2<sup>nd</sup> Annual Meeting Program

WHEN 26.- 28.05.2020



TUESDAY – 26 <sup>th</sup> May 2020		
TIME	SPEAKER	SUBJECT
09:00-09:15	Jens Greinert/ GEOMAR	Welcome and Highlights and lessons learned - Looking back to 2 years of Digital Earth
09:15-11:00	Peter Dietrich/ UFZ (Introduction & Moderation)	SMART Monitoring approaches in Digital Earth
	Philipp Fischer/ AWI & Holger Brix/ HZG	Joint ship cruises on the North Sea: Sensor management and data flow
	Brenner Silva/ AWI	Dataflow and services
	Ralf Kunkel/ FZJ	Workflows for automated quality control and quality assessment
	Uta Ködel/ UFZ	FAIR+ - Going beyond FAIR to increase data reliability
	Amir Haroon/ GEOMAR	Using machine learning for automatic site detection of seafloor massive sulfides
	Erik Nixdorf/ UFZ	Regionalisation of soil moisture trends from Cosmic Ray Neutron Rover Surveys using machine learning
	Maximilian Graf/ KIT	Opportunistic sensing of precipitation with Commercial Microwave Links
	Iason Gazis/ GEOMAR	Terrain Sampling based on auxiliary information: A collection of methods
	Everardo González & Ewa Burwicz-Galerne/ GEOMAR	Deep neural networks for total organic carbon prediction and data-driven sampling
11:00-11:15	<b>Virtual Coffee Break</b>	
11:15-13:00	Doris Dransch/ GFZ (Moderation, Introduction)	Integrated Data Exploration: Concepts, Methods, Tools
	Doris Dransch, Bruno Merz & Stefan Lüdtko/ GFZ, Viktoria Wichert, Bentje Tiedje/ HZG/GERICS, Erik Nixdorf/ UFZ	The Flood Event Explorer: An example for workflow-based integrated data exploration
	Daniel Eggert/ GFZ	A component-based software framework to support integrated data exploration
	Valentin Buck, Flemming Stäbler/ GEOMAR	The Digital Earth Viewer - Alpha version: Creating infrastructure for an interactive exploration tool of 4D Earth science data
	Patrick Michaelis/ GEOMAR	A workflow for deep learning on vector and raster data - finding levees and bombs
	Kai Schröter/ GFZ	Data integration for advanced flood impact indicators
	Lennart Marien et al., HZG/GERICS	Machine Learning to model Health Impacts of Climate Change: Heat Waves and Myocardial Infarctions in Augsburg

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WEDNESDAY – 27th May 2020		
9:00-10:20	Diana Rechid, HZG/GERICS Introduction & Moderation	Evaluation of success – Stories to tell
	Nike Fuchs/ AWI	World Café Results
	Laurens Bouwer & Diana Rechid/ HZG/GERICS	Evaluation Plans in 2020/2021
	Andreas Petzold et al./ FZJ	ENVRI-FAIR und FAIRness assessment methodology
10:20-10:30	<b>Virtual Coffee Break</b>	
10:30-11:15	Stephan Frickenhaus/ AWI	Sustainable Collaboration <ul style="list-style-type: none"> <li>Structures in support of Digital Earth</li> <li>Digital Earth in PoF-IV</li> <li>Next steps in organization and communication</li> </ul>
11:15-13:00	Bruno Merz/ GFZ	Show Case Flood <ul style="list-style-type: none"> <li>Intro by Bruno Merz</li> <li>Where are we standing?</li> <li>Links between workflows?</li> <li>What is next?</li> <li>What do we do if a severe flood hits Germany?</li> </ul>

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THURSDAY – 28th May 2020		
09:00-10:30	Roland Ruhnke/KIT & Jens Greinert/ GEOMAR	Methane Show Case presentations to show possible links with Flood show case <ul style="list-style-type: none"> <li>• Presentation of different tool boxes</li> <li>• Intro to methane show case: List of scientific questions</li> </ul>
	Mahyar Valizadeh/ HMGU	Point-2-space; examples from the ocean
	Andrey Vlasenko/ HZG	ML based data extrapolation-examples from the atmosphere
	Sebastian Grayek/ HZG	How to re-grid
	Christian Scharun/ KIT	Pattern algorithm - linking CO, C <sub>2</sub> H <sub>6</sub> , C <sub>3</sub> H <sub>8</sub> with CH <sub>4</sub>
	ALL	Open discussion round on how to link Show Case A and B <ul style="list-style-type: none"> <li>• Which software languages and applications do we use?</li> <li>• Flood Event Explorer - Digital Earth Viewer synergies in DE with respect to viewers → link to DataHUB</li> <li>• Links between Workflows approaches of both show cases</li> <li>• How to live a common software frame work? - Sharing ideas and approaches</li> <li>• Goals for outcomes and tools for the final phase of Digital Earth</li> </ul>
10:30-10:45	<b>Virtual Coffee Break</b>	
10:45-11:45	David Greenberg/ HZG & Tobias Weigel/ DKRZ	HAICU-AIM Projekt in Earth & Environment
11:45-12:00	Jens Greinert/ GEOMAR	Closing
12:00	<b>End of the meeting</b>	