













TUESDAY 09/24/2019

Time	Topic	Speaker
08:30 AM	 Registration Coffee and Refreshments Install GeoDict 2020 Trial License	 45 minutes
09:15 AM	Welcome and introduction	Andreas Wiegmann Math2Market
09:30 AM	 Innovations in GeoDict 2020	Erik Glatt Math2Market
09:55 AM	How GeoDict users benefit more rapidly from newly developed features	Jürgen Becker Math2Market
10:20 AM	 Break Coffee and Refreshments Hands-on Demonstrations	 45 minutes
11:05 AM	New highlight features in Filtration, from slip-flow in nano-fibers to complete filter simulation	Mehdi Azimian Math2Market
11:30 AM	 Modeling and simulation of activated carbon layers in adsorptive air filter media	Friedemann Hahn MANN + HUMMEL
11:55 AM	From μ CT scans to optimized mist filters	Dennis Hoch Heilbronn U. of Applied Sciences (HHN)
12:20 PM	 Lunch	 60 minutes
01:20 PM	Digital design of next generation energy materials for batteries and fuel cells	Ilona Glatt, Mathias Fingerle Math2Market
01:45 PM	 Introduction to diffusion processes and how to simulate them with DiffuDict	Sven Linden Math2Market
02:10 PM	Virtual materials design based on the quantification of effective transport properties in a SOFC anode	Mathias Fingerle Lorenz Holzer Math2Market zhaw School of Engineering
02:35 PM	Microstructure optimization of high energy fast chargeable Li-Ion cell	Stanislav Severov Volkswagen
03:00 PM	 Break Coffee and Refreshments Hands-on Demonstrations	 45 minutes
03:45 PM	Understanding mass transport phenomena in porous layers of polymer electrolyte fuel cells	Jens Eller Paul Scherrer Institut
04:10 PM	 Analyzing the microstructure of Lithium Ion battery electrodes by using tomography methods	Jochen Joos KIT IAM-WET
04:35 PM	Developing high performance battery cells: Finding the Digital Twin of cathodes with GrainFind	Ilona Glatt, Fabian Biebl Math2Market
05:00 PM	Move on to Photo Location and take Group Photo	
06:15 PM	Welcome Reception & Gala Dinner	

WEDNESDAY 09/25/2019

Time	Topic	Speaker
08:45 AM	Digital Rock Physics with GeoDict 2020	Jens-Oliver Schwarz Math2Market
09:10 AM	New DRP tools in GeoDict 2020 - Predefined Apps and Add-Ins	Christian Hinz Math2Market
09:35 AM	Geometric state variables for capillarity in porous media	Steffen Berg Shell
10:00 AM	Poroelastic behavior of rocks using Digital Rock Physics	Matthias Kabel Fraunhofer Institute for Industrial Mathematics (ITWM)
10:25 AM	 Break Coffee and Refreshments Hands-on Demonstrations	 45 minutes
11:10 AM	The challenges of high-resolution analytic FIB-SEM tomography and their solution	Tobias Volkenandt ZEISS
11:35 PM	 Advances in 3D image import: New image-processing filters	Andreas Weber Math2Market
12:00 PM	Making great images and animations with GeoDict 2020	Nicolas Harttig Math2Market
12:25 PM	 Lunch	 60 minutes
01:25 PM	GeoDict 2020's features for the digital design of composites and foams	Martina Hümbert Math2Market
01:50 PM	 Math2Composites: Joining experiments and simulations for efficient composite design	Aaron Widera Math2Market
02:15 PM	Digitized design of textiles and permeability measurement allows time- and cost efficient material selection	Oliver Rimmel Institut für Verbundwerkstoffe (IVW)
02:40 PM	 Break Coffee and Refreshments Hands-on Demonstrations	 45 minutes
03:25 PM	Grain size dependence of Young's modulus and thermal conductivity	Tereza Uhlířová U. of Chemistry and Technology (UCT) Prague
03:50 PM	 FiberFind: Machine learning-based segmentation and identification of individual fibers in μ CT images of fibrous media	Andreas Grießer Math2Market
04:15 PM	Conclusion and farewell	Andreas Wiegmann Math2Market
04:30 PM	Official End	
06:00 PM	Evening Program for Workshop (Sep 26) participants: Get-together and sunset drinks on upper deck of Restaurant 21	