

Online registration: www.empa.ch/imaging

TOPIC

Images from scanning electron microscopy to X-ray and neutron radiography and tomography as well as different methods and techniques to analyze images.

TARGET AUDIENCE

Scientist, PhD and postdocs working with different imaging techniques and analysis procedures

OBJECTIVES

At Empa, many scientists are involved in imaging and need software for data visualization and analysis. A first Topical Day was held in May 2012. Since attendees expressed their need to know more about the different software and methods for visualization, segmentation, analysis and registration, a second Topical Day on imaging is presented.

In the first part of the day's program, Dominique Bernard will present an overview of analysis methods applied on porous materials. Then, several Empa scientists will present examples of their imaging work. In the second part, scientists from different imaging software companies will cover the scientific capacities of the respective software. All presenters will attend the full day in order to be able to participate in the round table discussion on Empa's needs in terms of imaging analysis capacities.

The aim of the topical day series is to provide a platform for exchange and network on these imaging different approaches. A new internal "Imaging" wiki page is now available.

PROGRAM

08.30	Welcome Coffee & Registration
09.00	Opening remarks Dominique Derome, Empa
09.10	Building a pore network model from a grey level 3D image of a porous sample to predict its permeability tensor Dominique Bernard, CNRS, Université de Bordeaux, ICMCB, Pessac, France
10.20	Coffee break
10.40	Examples and current work from colleagues at Empa Marta Rossell, Microscopy center. <i>Electron tomography at Empa</i> Hannelore Derluyn, Building Science and Technology. <i>Segmentation between salt solution and crystals in porous media</i> Michele Griffa, Concrete and Construction Chemistry. <i>Characterization of cracks in cement-based materials by microscopy and image analysis</i> Rolf Stämpfli, Protection and Physiology. <i>Transplanar and lateral water transport in textiles</i> Potis Dimopoulos Eggenschwiler, Internal Combustion Engines. <i>Image processing for TEM, shadowgraphy and PIV</i> Leyre Sagarna, Solid State Chemistry and Catalysis. <i>Porous Materials for Energy Related Applications</i>
12.15	Lunch Presentation of commercial software and open-source codes
13.30	Peter Westenberger, on AvizoFire
14.00	Loes Brabant, on Morpho+
14.30	Alessandra Patera, Empa, on Slicer 3D
14.40	Coffee break
15.00	Daniela Handl, on VG Studio
15.30	Michele Griffa, Empa, on Elastix
15.45	Round table – What are our needs at Empa?
17.00	Closing

REGISTRATION

Imaging and image analysis II

Empa, Dübendorf, Überlandstrasse 129
AKADEMIE
Tuesday, October 30, 2012, 08.30 – 17.00

Deadline: October 24, 2012

Please register online:

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You will receive a confirmation by e-mail.