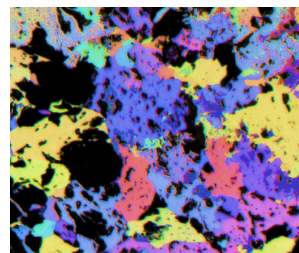
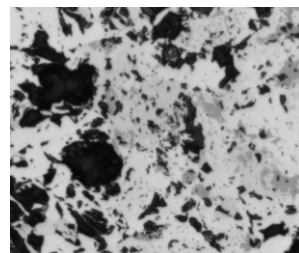


Quantitative Image Analysis of Minerals and Rocks

The two day Short Course is intended to initiate mineralogists and geologists to the use of quantitative tools in microscopy. This includes the appropriate use of image acquisition technologies in 2D and 3D, as well as an introduction to the principles of stereology and image analysis. Particular attention will be given to the measurement of size and shape distributions of grains and particles as well as to the fabric and textural properties of rocks.

The Short Course will be taught by leading scientists in their fields who will illustrate theoretical aspects with a series of case studies in mineralogy, particle science and petrography.

This Short Course is being organized in between IMA2010 and IAMG2010 both held in Budapest. Participants are warmly invited to attend these international conferences.



Budapest
August 28-29, 2010

Jointly sponsored by :



IMA-CAM Commission
for Applied Mineralogy



International Society for
Mathematical Geosciences

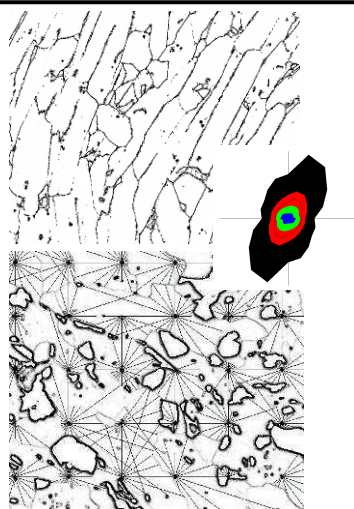


International Society for
Stereology & Image Analysis

About the lecturers :

Patrick Launeau is professor at Université de Nantes (FR). He published several papers on the quantitative analysis of rock fabrics with special attention to the use of intercepts. He is also involved in imaging and remote sensing of natural environments.

Eric Pirard is professor at Université de Liège (BE). He has extensive experience in quantitative image analysis of ores and particle characterization. His interest for geo-imaging also includes remote sensing and industrial vision of ornamental stones and aggregates.



Indicative Short Course Program

Day 1

- Welcome
Image Analysis vs. Stereology
From minerals to pixels :
- Sampling and probing rocks
 - Digital imaging techniques
- Classification of pixels*
- Spectral tools
 - Spatial tools
- Modal analysis of rocks*
Individual Blob/Grain analysis
- Size parameters
 - Shape parameters

Day 2

- Fabric analysis*
- Shape preferred orientation (SPO) vs. strain quantification.
 - Intercepts in digital images : a tool to analyze interconnection of grains in rocks vs. inertia tensor of individualized grains
 - Ellipsoid of SPO and strain by combining $3 \perp$ images.
- Applications to various images from SEM microscopy to field.*
Open discussion with participants based on their own samples.

Number of participants: min. 12 - Max. 24

Price per participant: 150 € (incl. coffee breaks, lunch, closing event)

260 € (for participants not registering for either IMA 2010, MECC2010 or IAMG 2010)

For more information, please contact : gemme@ulg.ac.be