

**EMAS 2008**  
**The 8<sup>th</sup> Regional Workshop of the European Microbeam Analysis Society**

Meeting Report

The 8<sup>th</sup> Regional Workshop of the European Microbeam Analysis Society (EMAS) took place in Trieste, at the Abdus Salam International Centre for Theoretical Physics (ICTP), on April 19-22, 2008.

With the participation of some 60 scientists from 15 different European Countries this edition of the Workshop focussed on the latest developments in a wide variety of microbeam techniques spanning from electron microscopy techniques to the use of focussed photon beams from Synchrotron sources. This latter aspect represented a most welcome novelty in this series of workshops, traditionally devoted to the tutorial aspects of electron and ion beam analytical techniques and applications to all fields of material science and especially aimed at young scientists approaching this field of interest from a large variety of perspectives.

Subjects dealt with in the tutorial sessions included: theory and practice in quantitative microanalysis in the SEM and EPMA (EDS and WDS); light element analysis; Monte Carlo simulation; analytical modes in the TEM (EDS and EELS); analytical procedures in accelerator-based microscopy and spectroscopy (EXAFS, XANES), including phase contrast tomography and imaging with highly penetrating probes such as high energy photons, neutrons and free electron lasers.

Applications included studies on a large variety of materials from thin films to minerals, biological tissues, cultural heritage materials and artefacts, food structure and properties, nuclear waste and forensic materials, cometary particles, etc.

The round table discussions and poster sessions provided ample opportunity for an informal and profitable exchange among the participants, eager to share their experiences and needs, from the leading expert to the near-novice level.

The Workshop's traditionally compact format favoured cross fertilization of ideas between the two worlds of conventional and non-conventional microscopies the latter being represented by the latest developments at third generation synchrotron light sources, strongly favoured in this case by the close association between the ICTP and Elettra, the Italian synchrotron in Trieste. A visit to the synchrotron facility and the newly developed lines for microscopy, microdiffraction and microanalysis closed a most profitable meeting. Selected scientific papers from works presented at the meeting will be published in *Microscopy and Microanalysis*.

The local Organizing Committee: Gabriele Tamborini of ITU, Karlsruhe, Claudio Tuniz of ICTP, Trieste (co-chairmen), Romano Rinaldi of EMAS Board and University of Perugia and Christine Walther of ITU, Karlsruhe, wish to express their gratitude to ICTP and UNESCO, Sincrotrone Trieste SCpA, the JRC of the European Commission, the IAEA and EMAS for a scientifically very profitable Workshop.

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*Group photo of the participants to the 8<sup>th</sup> Regional Workshop of the European Microbeam Analysis Society (EMAS), Grignano-Miramare, Trieste, Italy.*