

## WORKSHOP ON REMOTE MICROSCOPY FOR ELECTRON MICROSCOPY

20-21-22 October 2008  
Sardegna Ricerche, Pula  
Italy

### Workshop Topics

The remote control of electron microscopes has gained more and more attention, and often a session dedicated to "Remote Microscopy" is organized in most international microscopy congress.

Several experiences have been presented showing that the remote control of electron microscopes is possible with the available technology and that electron microscopes can be operated in several configurations by using network connections ensuring wide band width and low latency. These requirements represent in fact the basic requirements for the development of this technology on a large scale.

On the other hand, grid architectures have been created to share supercomputing resources, but nowadays the application field has been enlarged to share also scientific instruments. In fact, Grid architectures can manage enormous amount of data and are able to guarantee a highly secure access, essential when high cost instruments are made accessible from public network.

The discussion among the two scientific communities can be fruitful for future development and can represent a pre-requirement for the development of agreements and shared convinements which can represent the basis for the setting up of standard configuration and common protocols.

### Workshop Goals

The purpose is to start a discussion among the researchers involved in the field, about challenges and opportunities, technical problems, solutions and perspectives starting from the microscopy side up to the possibility for a real grid architecture for several advanced instruments, distributed on many different places. This will introduce another discussion about the creation of a standard for instruments remote control such as electron microscopes.

During the workshop some demos will be carried out, in order to better identify the best solutions proposed to each disclosed technical problems.

A desirable goal is to make this workshop a fixed biennial appointment, where discuss about the state of the art of the remote control, the new technical problems and to find the best standardizable solutions.



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