TECHNOLOGY TRANSFER
THE RAPHAEL'S FORNARINA AS NEVER SEEN

From January 28 to 30, the Barberini Corsini National Galleries dedicated three whole days to investigations and studies on the Raphael's Fornarina. In that period visitors had the opportunity to watch the experts, including INFN researchers, at work on Raphael's masterpiece. In particular, the first day was spent in the Gigapixel+3D photogrammetric acquisition of the painting: a very high resolution shot, obtained by composing multiple detailed images of the same subject. Thanks to the new Ma-XRF multichannel scanner system developed by the INFN in its laboratories in Roma Tre (in collaboration with the department of science of the University of Roma Tre, Sapienza University of Rome and the CNR-ISMN), a chemical investigation campaign has been carried out during the other two days, which proved useful information to restorers and conservators for any work on the painting. The innovative aspect of the Ma-XRF analysis is the capacity to go beyond the analysis of a single point, thus providing real images of the distribution of the individual chemical elements revealed and offering wide and unprecedented possibilities of knowledge on the nature of the pigments, the pictorial techniques and the state of conservation of the works. Ma-XRF has been developed within MUSA (Multichannel Scanner for Artworks), a technology transfer project, realized thanks to the contribution of the Lazio Region and with the support of the INFN network for cultural heritage CHNet (Cultural Heritage Network), which aims at transferring the skills on electronics and detectors developed within the INFN to companies operating in the sector, for their technological enhancement. ∎