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Extreme Rays

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Davide Bleiner is director of the Laboratory for Advanced Analytical Technologies of the Empa National Laboratories. He has obtained a laurea summa cum laude in 1998 at the Sapienza Università di Roma in Earth Sciences, then completed a PhD at the ETH Zurich in 2002 on laser ablation microanalysis. After international postdocs, he was senior assistant until 2010 at the ETH Zurich in the Dept. of Engineering, and later SNF assitant professor at the University of Bern, developing a plasma-driven X-ray laser. In 2014 he took over the helm at Empa's Laboratory for Advanced Analytical Technologies. His research is focused on the development of techniques for instrumental chemical analysis.

Uwe Busch was born in 1960 in Gelsenkirchen, Germany. He studied physics and pedagogical psychology at the Ruhr-University of Bochum. He obtained a doctorate in medical physics from the Friedrich-Alexander-University Erlangen, Bavaria. He was first scientific collaborator and then the director of the German Roentgen-Museum. He is member of various scientific societies and founding member of the International Society for the History of Radiology. Both Roentgen's biography and the history and medical application of X-rays have been published over the years. He has curated exhibitions on radiological topics and lectured at national and international meetings. He is honorary member of the British Institute of Radiology and Roentgen Bragg Fellow of the City of Adelaide, Australia.

Alessia Cedola is permanent scientist (III level) at the Institute of Nanotechnology – Laboratory for Soft and Living Matter, at the National Research Council (CNR) in Rome. After obtaining a PhD at the University Joseph Fourier in Grenoble (France) with an experimental thesis at the European Synchrotron Radiation Facility (ESRF) in 1999, she is currently Associated Professor of Experimental Physics at the Sapienza Università di Roma.

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Massimo Ferrario is currently coordinator of the SPARC_LAB facility at the Laboratori Nazionali di Frascati of INFN in Italy and leader of the EuPRAXIA@SPARC_LAB project. In the last 25 years he has been working in the field of high brightness photoinjectors, free electron lasers and advanced accelerator concepts including plasma accelerators. He has been chairman of the European Advanced Accelerator Workshop held in Italy in 2013, 2015 and 2017 with more than 300 international attendants. He is author of more than 300 publications and has got several invited talk at international conferences and workshops. He is a member of the CERN Accelerator School (CAS) where he has given several lectures about the Physics of High Brightness Beams. He is also teaching Accelerator Physics at the Sapienza Università di Roma in the PhD program on "Accelerator Physics".

Vera Hubert is a chemist at the Swiss National Museum. She is working at the Collection Centre in the group for conservation science. Her fields of research are materials characterisation, development and refinement of conservation methods, and preventive conservation. She was also participating in several national and international research projects in the field of cultural heritage. She graduated from the Freie Universität Berlin and has various publications on inorganic chemistry, crystallography, archaeometry, archaeology and on cultural heritage to her name.

Cecilia Massenzi obtained a MA in Science and Technology for the Conservation of Cultural Heritage in 2013. She has collaborated with public and private organizations in the field of conservation and has been working for 5 years in the sector of religious tourism for the Holy See.

Sarah Merks is senior research scientist and project manager at the Institute Humans in Complex Systems (www.fhnw.ch/miks) of the School of Applied Psychology, University of Applied Sciences and Arts Northwestern Switzerland. She also works at the Center for Adaptive Security Research and Applications in Zurich (www.casra.ch).

Adrian Schwaninger is the head of the Institute Humans in Complex Systems (www.fhnw.ch/miks) of the School of Applied Psychology, University of Applied Sciences and Arts Northwestern Switzerland. He is also the chairman of the Center for Adaptive Security Research and Applications in Zurich (www.casra.ch).

Marco Stampanoni has been Assistant Professor since 2008 and, since 2013, Associate Professor at the Department of Information Technology and Electrical Engineering at ETH Zurich. In October 2017, he was appointed Full Professor of X-Ray Imaging at ETH Zurich. His professorship is affiliated to the Institute of Biomedical Engineering of the University and ETH Zurich, where he leads the division for X-ray Imaging and Microscopy. At the Paul Scherrer Institut, he is the head of the SLS X-ray tomography group. Born on May 10, 1974 in Lugano (Ticino, Switzerland) Marco Stampanoni studied physics at the ETH Zurich. After receiving his diploma in 1998, he graduated at the ETH in 2002 in the area of synchrotron-based tomographic microscopy. For his PhD, he received the ETH silver medal in 2003. From 1998 to 2000 he successfully followed a post-graduate course in Medical Physics. In 2002 he started as an Instrument Scientist at the Swiss Light Source (SLS) of the Paul Scherrer Institut in Villigen, Switzerland. In 2004 he was nominated beamline scientist and responsible for the development and realization of a tomography dedicated beamline at the SLS. In 2005 he was elected Head of the "X-ray Tomography Group" of the SLS. In 2008 he was appointed Assistant Professor (Tenure Track) for X-ray Microscopy at the ETH Zurich and, in 2010, Director of the ETH-Master of Advanced Studies (MAS) in Medical Physics. In 2012 he received an ERC Grant for his project on phase contrast X-ray imaging and won the "Dalle Molle Foundation Award" for his pioneering work on X-ray phase contrast mammography. He is teaching at ETH Zurich in the field of X-ray microscopy.

Andrea Sterzi obtained his PhD at the University of Trieste at the T-Rex laboratory focusing on the study of several classes of novel materials by means of time- and angle-resolved Photoelectron Spectroscopy (Tr-ARPES). Since 2017 he is continuing his post-doctoral research at Empa in Switzerland.

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