

ESRF USER ORGANISATION COMMITTEE (UOC)

Election November 2020

CANDIDATES to represent the scientific community of STRUCTURE OF MATERIALS

James Bowen, james.bowen@open.ac.uk

Affiliation: Senior Lecturer in Materials Engineering, The Open University, Milton Keynes (UK)

James Bowen is a research group leader exploring the application of Atomic Force Microscopy and materials characterisation techniques to a variety of research areas, including Advanced Materials, Healthcare (Medical, Dental, and Pharma), and Personal Care. In 2015 he was appointed Lecturer in Materials Engineering at The Open University, UK. His passions lie in the generation of new knowledge for interdisciplinary science and engineering.

Dr. James Bowen's research involves surface modification, particle technology, polymers, rheology & complex fluids, adhesion, and the liquid/solid interface. He has particular interests in nanolithography, nanomachining, nanometrology, intermolecular & interparticle interactions, biomaterial degradation, and innovative methods of characterising complex materials. He also collaborates with comparative ecophysicists to investigate structure-property relationships in natural materials.

Peter Gaal, peter.gaal@ikz-berlin.de

Affiliation: X-Ray Optics Group at Leibniz-Institut für Kristallzüchtung (IKZ), Berlin (DE)

Peter Gaal is Head of X-Ray Optics Group at Leibniz-Institut für Kristallzüchtung (IKZ) and Head of the IKZ-DESY Joint Lab since July 2019. After completing his studies in Electrical Engineering and Telecommunications at Technische Universität Berlin and École National Supérieure de Paris in 2005, he finalised his PhD in experimental physics at Max-Born-Institute for Nonlinear Optics and Short Pulse Spectroscopy, Berlin, Germany between 2005 and 2008. He was then a Postdoctoral Researcher and Beamline Scientist at Helmholtz-Zentrum Berlin for Materials and Energy, Berlin, Germany during 2009-2014, and visiting professor at the Institute for Nanostructure and Solid-State Physics, Universität Hamburg, Germany, in 2014-2019.

Main research topics of Dr. Gaal are structural dynamics of solids, photoacoustics and nanoscale heat transport, investigation of functional material properties, e.g., ferroelectricity, electrocalorics, electronic and optical properties, with a special emphasis in the development of Active X-Ray Optics for synchrotrons and FELs. He's been using advanced methods, such as X-Ray Diffraction and synchrotron-based time-resolved x-ray methods, ultrafast optical spectroscopy, transient grating spectroscopy and MOKE.

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Alberto Martinelli, alberto.martinelli@spin.cnr.it

Consiglio Nazionale delle Ricerche - SuPerconducting and other INnovative materials and devices institute (SPIN), Genova (IT)

Alberto Martinelli obtained his Degree in Chemistry at the Università degli Studi di Genova (ITALY) in 1996 and his PhD in Chemistry in the same institution in 2001, Since 2002 he is a researcher at the Superconducting and other Innovative Materials and Devices (SPIN) institute of the Italian Research Council (CNR), Genova (ITALY), <https://www.spin.cnr.it/>. His scientific activity is focussed on chemistry and physics of materials, in particular crystallography, solid state chemistry and solid state physics of inorganic compounds. Materials of current interest include Fe-based superconductors, perovskite-type halides (photo-luminescent perovskites) and oxides (manganites), heavy fermion intermetallic compounds, minerals, transition metal nitrides, rutile- and spinel-type oxides, superconducting ruthenocuprates. Alberto Martinelli's research activity extensively exploits analytical techniques available at large scale facilities (synchrotron radiation and neutron sources; ESRF, ILL, PSI). Since 2003, he has performed more than 25 experiments at the ESRF, carried out at 8 different beamlines (BM01B, ID11, ID13, ID15A, ID21, ID22, BM29, BM31). His experiments are mainly devoted to the characterization of inorganic compounds by elastic X-ray scattering (X-ray powder diffraction coupled with the Rietveld refinement method and pair distribution function analysis); he has also participated in experiments based on spectroscopic techniques (μ -fluorescence, EXAFS, XANES).

Anton Plech, anton.plech@kit.edu

Affiliation: Institute for Photon Science and Synchrotron Radiation (IPS), Karlsruhe Institute of Technology (KIT), Eggenstein-Leopoldshafen (DE)

Anton Plech's research covers various aspects of light-matter interactions and dynamics properties of condensed matter, in particular nanoscale dynamics and phase transitions. The applied techniques cover liquid scattering, high resolution diffraction as well as imaging and spectroscopy methods. These experiments rely heavily on the forefront method development at the ESRF. After completing his PhD in Munich, Anton Plech has been ESRF postdoc from 2000 to 2002, won the ESRF Users' Organization Young scientist prize in 2004 and worked as scientist at Konstanz University and as of now Karlsruhe Institute of Technology. Earlier, he also served as proposal review member.

Dr. Anton Plech is currently Head of X-ray scattering Department at Institute for Photon Science and Synchrotron Radiation (IPS, Karlsruhe Institute of Technology, www.kit.edu) and lecturer at the University of Konstanz (Privatdozent Uni Konstanz), Fachbereich Physik).

He believes that operating large scale facilities in (freely accessible) user service is an excellent way to foster science in a democratic way and support young scientists., and that this should be preserved and developed.