

ESRF USER ORGANISATION COMMITTEE (UOC)

CANDIDATES to represent the scientific community of
« X-Ray Nanoprobe & Imaging »

Fabrizio Bardelli, fabrizio.bardelli@gmail.com

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https://www.researchgate.net/profile/Fabrizio_Bardelli2

Dr. Fabrizio Bardelli is currently working at the CNR-Nanotec institute (Italian National Research Council) Rome (Italy). He was previously a post-doc researcher at the Earth Science departments of the Universities of Torino (Italy) and at the Institut des Sciences de la Terre (ISTerre) of the Joseph Fourier University Grenoble (France). After receiving his Ph.D at the Ecole doctorale de Physique (Joseph Fourier University, Grenoble, France) in 2006, he worked six years at the ESRF, where he was beamline scientist at the Italian beamline for x-ray absorption spectroscopy, BM08, during 2006 – 2008.

Dr. Fabrizio Bardelli research interests focus on the use of synchrotron radiation, and more recently on scanning X-ray fluorescence and X-ray tomography techniques. He is exploiting the revolutionary potential of X-ray micro and nanobeams for studying life science and environmental cutting-edge topics, using ID21 and ID16A beamlines at the ESRF.

Sophie Bouat, sophie.bouat@wanadoo.fr

Engineer Material Science & Imaging – Senior Expert and Founder of Science-S.A.V.E.D., St-Martin d'Uriage, France

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After receiving her PhD in Physics at the Université Joseph Fourier in Grenoble in 1997, she has worked for more than 20 years in the domain of Research and Development (R&D) at the CEA, in companies and start-up companies. In 2019 she created “Science-SAVED”, a start-up that aims to developing industries access to Large Scale Facilities.

As a synchrotron scientist, she is an expert of non-destructive analysis, 2D/3D imaging, metallurgy, additive manufacturing, and analysis of interfaces, cracks, surfaces and welding. In her research, she has used ID19 at the ESRF for micro-imaging of defects inside hundreds of harvesting devices, following the micro-cracks number with device lifetime. Micro-cracks evolution was related with crystallization state of the heart material of devices, and, in the upper layer, link is evidenced between strain and dislocation displacement.

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Yijin Liu, liyujin@slac.stanford.edu

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Dr. Yijin Liu is a Lead Scientist at the SLAC National Accelerator Laboratory since April 2020 where he previously was an associate staff scientist for three years (2012-2015) and a staff scientist for five years (2015-2020).

After receiving his Ph.D. in Optics at the University of Science and Technology of China (USTC), Hefei, China in 2009, he completed his education with a Postdoctoral Scholar at Stanford (2009 –2012). Dr. Liu has been very active in developing and applying multi-modal Synchrotron imaging techniques and data mining approaches to a broad range of scientific disciplines including energy storage materials, catalysis for petroleum industry, unconventional oil production and CO₂ sequestration, material under extreme conditions (e.g. high pressure, temperature, and magnetic field). His synergistic activities include editorial board member for Scientific Reports, Springer Nature (2016-present), synchrotron proposal reviewer/review panel (2015-present) for Advanced Photon Source (APS) and Center for Nanoscale Materials (CNM) of Argonne National Laboratory (ANL), Advanced Light Source (ALS) of Lawrence Berkeley National Laboratory (LBNL), and Canadian Light Source (CLS); Funding proposal reviewer (2013-present) for National Science Foundation, DOE SBIR-STTR grant, Army Research Office of U.S. Army Research Laboratory, and ACS Petroleum Research Fund, and Israeli Ministry of Science and Technology. More information about Dr. Liu's research can be found at his group website listed above.

Guillermo Requena, Guillermo.Requena@dlr.de

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Univ. Prof. Dr. Guillermo Requena is Head of the Department of Metallic Structures and Hybrid Materials Systems at the DLR (German Aerospace Centre) and chair of Metallic Structures and Hybrid Materials Systems for Aerospace Engineering at the RWTH-Aachen University. After receiving his Ph.D. at the Institute of Materials Science and Technology at Vienna University of Technology in 2004, he had completed his education with the Habilitation in the same institute, where he also founded the group "Metallic Structural Materials and Composites" (2010) and got his tenure as Associate Professor (2014). He moved to DLR/RWTH-Aachen in 2015. His scientific activities are concentrated in the interaction between internal architecture and (thermo-)mechanical behaviour of structural metals and composites. The R&D topics of Prof. Requena cover multi-scale 3D-imaging and diffraction techniques to investigate materials under manufacturing and service conditions; development and characterization of lightweight alloys; additive manufacturing of metals with focus on alloys for structural applications.