Meeting of the ETH Board on 13/14 May 2020

11 new professors appointed at the two Federal Institutes of Technology

At its meeting of 13/14 May 2020 and upon application of the President of ETH Zurich, Professor Joël Mesot, and the President of EPFL, Professor Martin Vetterli, the ETH Board appointed a total of 11 professors and awarded the title of professor to three individuals. It also took note of the resignations of seven professors and thanked them for their services.

Bern, 14 May 2020

Appointments at ETH Zurich

Professor Verena C. Griess (*1977), currently Assistant Professor at the University of British Columbia, Canada, as Full Professor of Forest Resources Management. Verena C. Griess conducts research into forest resources, drawing on knowledge from a number of different disciplines in order to develop computer-assisted decision-making models and systems that can be used to devise sustainable exploitation systems. Her particular research focus will enable her to use the newly created professorship to synthesise key findings from allied disciplines and contribute to both fundamental and applied research.

Professor Steven L. Johnson (*1975), currently Associate Professor at ETH Zurich, as Full Professor of Physics. Steven L. Johnson's main interest is the investigation of ultrafast processes in materials whose properties derive from strongly correlated electrons. His wide range of activities in a very competitive field has brought Steven L. Johnson considerable national and international visibility, which benefits the entire Department of Physics at ETH Zurich. He also has an excellent track record as a member of the SwissFEL management team at the Paul Scherrer Institute (PSI).

Professor Silke Langenberg (*1974), currently Professor at Munich University of Applied Sciences, Germany, as Full Professor of Construction Heritage and Preservation. The research topics covered by Silke Langenberg include the preservation and continued use of post-war modernist monuments. With her appointment, the Department of Architecture is substantially boosting the range of competencies available within the *Institut für Denkmalpflege und Bauforschung* (Institute of Construction History and Preservation), as well as strengthening its networks. Silke Langenberg will place particular emphasis on the treatment of newer and recent monuments and on further developing the theory of monuments.

Professor Metin Sitti (*1970), currently Head of Department at the Max Planck Institute for Intelligent Systems in Stuttgart, Germany, as Affiliated Professor of Physical Intelligence. Bio-inspired micro/nanorobotics is Metin Sitti's main research focus, particularly the integration of microrobots into MRI technology with the aim of using miniature robots in healthcare, biotechnology and environmental monitoring. The appointment of Metin Sitti is of strategic significance because of ETH Zurich's commitment to medical and health technology and its investment in the most up-to-date imaging procedures.

Professor Christoph Stadtfeld (*1982), currently Tenure Track Assistant Professor at ETH Zurich, as Associate Professor of Social Networks. Christoph Stadtfeld studies the emergence, development and dynamics of social networks and their impacts on individuals. He is mostly noted for his excellent interdisciplinary research profile, especially in the fields of informatics, statistics and social research. In 2018 he received the Raymond Boudon Award from the European Academy of Sociology for his work in the area of quantitative sociology, as well as a Digital Lives grant from the Swiss National Science Foundation (SNSF).

Dr Yuko Ulrich (*1983), currently SNSF Ambizione Fellow at the University of Lausanne, as Assistant Professor of Experimental Epidemiology. Yuko Ulrich's main research focus is on social insects, which are highly suitable subjects for the laboratory-based study of the transmission of infectious diseases. She devotes particular attention to the dynamics of infections within colonies of social insects. Yuko Ulrich is therefore well placed to play a leading role in the relatively new area of experimental epidemiology – a key discipline of the future. The assistant professorship is being fully funded via an ERC Starting Grant and an SNSF Eccellenza Professorial Fellowship.

Appointments at EPFL

Professor Hatice Altug (*1978), currently Associate Professor at EPFL, as Full Professor of Bioengineering. Hatice Altug's research focuses on applied nano-optics in the field of biology and life sciences. Among other innovations, she has developed a method of detecting mid-infrared rays and molecular fingerprints without the need for spectrometry. She now aims to develop new nanophotonic biosensors using revolutionary techniques in the areas of biosensor technology, spectroscopy and bioimaging. Hatice Altug has received several awards, including an ERC Consolidator Grant and an ERC Proof of Concept Grant, and is regarded as a pioneer in her field.

Dr Giuseppe Carleo (*1984), currently Scientist at the Flatiron Institute in New York, USA, as Tenure Track Assistant Professor of Physics. Giuseppe Carleo is a young researcher who has already gained international recognition in the field of many-body quantum systems. Among other achievements, he has developed a machine learning software programme which not only helps computers "learn" the quantum state of a complex physical system based on experimental observations but also enables them to predict the results of hypothetical measurements. His pioneering achievements in this promising field have already had a significant scientific impact.

Dr Marius Lemm (*1988), currently Benjamin Peirce Fellow at Harvard University, Cambridge, USA, as Tenure Track Assistant Professor of Mathematics. Marius Lemm's work focuses on problems of mathematical physics originating in quantum physics and quantum information. At just 31 years of age, Marius Lemm has already proved himself to be an outstanding mathematician whose work to date combines several mathematical areas, including operator theory, random matrices and partial differential equations. At EPFL, he will set up a research group in the area of mathematical analysis and mathematical physics, further strengthening the links between mathematics and physics.

Dr Mats Stensrud (*1989), currently a post-doctoral student at Harvard University, Cambridge, USA, as Tenure Track Assistant Professor of Statistics. Mats Stensrud's unusual career path (Master in applied statistics, doctorate in neuroscience, Doctor of Medicine and post-doctorate in biostatistics) enables him to combine all these fields very creatively. He is currently conducting research in the area of biostatistics and causal inference with the aim of discovering whether a specific treatment can have a causal effect on the risk of a disease in the presence of competing risks. Mats Stensrud will further strengthen statistics at EPFL while building links with the School of Life Sciences and with biomedical establishments in the greater area.

Professor Jean-Philippe Thiran (*1970), currently Associate Professor at EPFL, as Full Professor of Signal Processing. Jean-Philippe Thiran's research focuses on computational image analysis for medical imaging, with special reference to the diagnosis of cardiovascular diseases and neurological disorders. He has also contributed significantly to the field of computer vision. His original research and pioneering achievements have gained international recognition in this highly competitive field. His dedication to educational activities is also exemplary, as a teacher, supervisor and section director. Concurrently, Jean-Philippe Thiran is an Associate Professor at Lausanne University Hospital (CHUV) and the University of Lausanne.

Award of the title of "Professor" at ETH Zurich

Dr Lukas Gallmann (*1973), currently Lecturer at the Department of Physics at ETH Zurich, as Adjunct Professor at ETH Zurich. Lukas Gallmann studies electron dynamics in solids over the shortest time scales (attoseconds) and develops laser sources which enable him to carry out his research within new parameter ranges. In 2018 he was awarded the title of Fellow of the Optical Society of America.

Dr Martin Mächler (*1959), currently Lecturer at the Department of Mathematics at ETH Zurich, as Adjunct Professor at ETH Zurich. Martin Mächler has earned global recognition for his work at the interface of statistical computing, software development and methodological research in statistics. His groundbreaking work contributed to the creation and development of R, a statistical programming language.

Dr René Rossi (*1967), currently Lecturer at the Department of Health Sciences and Technology at ETH Zurich and Deputy Head of the Materials Meet Life department at Empa, as Adjunct Professor at ETH Zurich. René Rossi studies the interactions between materials and the human body. He also participates in leading national and European research projects such as Zurich Heart and CCMX.

Departures from ETH Zurich

Professor Dario Neri (*1963), currently Full Professor of Biomacromolecules, will leave ETH Zurich with effect from 30 September 2020. Dario Neri joined ETH Zurich in 1996 and became a full professor in 2002. His research, which has won multiple awards, has a particular focus on specific antibody-drug conjugates for combating tumours. Dario Neri now wishes to

concentrate on Philogen, the biotech company he co-founded, where he will be developing drugs for the treatment of cancer and chronic inflammatory diseases.

Professor Michael B. Zimmermann (*1958), currently Full Professor of Human Nutrition, is to retire at the end of 2022. Michael B. Zimmermann was a senior scientist at ETH Zurich from 1996 to 2005 and became a full professor in 2012. He specialises in micronutrient deficiencies and the development of food-based strategies to correct them. His areas of expertise include trace element biochemistry, novel biomarkers, nanotechnology for nutrition and stable isotope techniques. Michael B. Zimmermann has won a number of awards for his research.

Departures from EPFL

Professor Matthias Finger (*1955), currently Full Professor of Management of Network Industries, is to retire at the end of July 2020. Matthias Finger became a full professor at EPFL in 2002 and, among other things, was responsible for a variety of professional development programmes at EPFL over many years. His research focuses on the deregulation of network industries such as postal services, telecommunications, electricity and public transport, and the intelligent control of large urban systems. In addition to establishing numerous collaboration partnerships with industry, Matthias Finger has conducted professional development projects relating to Swiss and international policy.

Professor László Forró (*1955), currently Full Professor of Physics of Complex Matter, will retire at the end of August 2020. László Forró joined EPFL in 1991 as a senior scientist and was appointed to a full professorship in 2002, when he also became Director of the Laboratory of Physics of Complex Matter. He was head of EPFL's Institute of Condensed Matter Physics from 2003 to 2009. László Forró conducts interdisciplinary research on topics ranging from novel quantum electronic materials and biomaterials through to functional nanostructures. His work has led to the development of innovative instruments such as the atomic force microscope.

Professor Harry Gugger (*1956), currently Full Professor of Architecture, is to retire at the end of January 2021. In 2005 Harry Gugger was appointed to a full professorship at EPFL, where he founded the Laboratoire de la Production d'Architecture. His laboratory was responsible for Bahrain's first national contribution to the *Biennale Architettura* in Venice, which received the 2010 Golden Lion award. Since 2011 he has been head of Laboratoire Bâle, a satellite laboratory for architecture and urban design in Basel. Harry Gugger has won numerous prestigious awards. His research and teaching have had a significant impact on EPFL's standing.

Professor Mohammad Amin Shokrollahi (*1964), currently Full Professor of Mathematics and Computer Science, will leave EPFL at the end of May 2020. Mohammad Amin Shokrollahi joined EPFL in 2003 as a full professor of mathematics and computer science. His research focuses on coding theory, complexity theory, cryptography and algorithmic number theory. He is the co-inventor of Tornado codes and the inventor of Raptor codes, and holds several patents in the area of iterative decoding. He is leaving EPFL in order to devote himself fully to his company Kandou Bus, which features among Europe's top 50 "super scale-ups" – some of the fastest-growing tech start-ups.

Professor Ian Smith (*1955), currently Full Professor of Structural Engineering, is to retire at the end of November 2020. In 1991 Ian Smith joined EPFL as a research associate and in 2005 he was promoted to Full Professor. His research unites mechanics for civil engineering, applied computer science and measurement systems. He has paid particular attention to topics such as actively controlling the shape of structures to improve their serviceability and usability, and biomimetic structures (for learning, self-diagnosis and self-repair). Thanks to his international reputation, Ian Smith has had a marked impact on his field of research and teaching.

The ETH Board would like to thank the departing professors for their services to science, teaching and academic administration.

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