

Meeting of the ETH Board on 19-20 May 2021

## **15 new professors appointed at ETH Zurich and EPFL**

**At its meeting of 19-20 May 2021 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 five women and ten men as professors and awarded the title of professor to one individual. It also took note of the resignations of seven professors and thanked them for their services. In the last 12 months, the ETH Board has made a total of 17 new appointments for women and 29 for men; the proportion of women among these new appointments amounts to 37%.**

Bern/Zurich, 21 May 2021

### **New appointments at ETH Zurich**

**Dr Pedro Beltrao** (\*1979), currently Group Leader at the European Bioinformatics Institute of the European Molecular Biology Laboratory in Hinxton, United Kingdom, as Associate Professor of Computational Systems Biology in the Department of Biology. Pedro Beltrao's research is concerned with the cellular consequences of genetic variation and their influence on health and illness. He received an ERC Starting Grant in 2015 and is regarded as one of the leading researchers in his field. His appointment creates important synergies with various departments and with University Hospital Zurich, particularly in relation to the Strategic Focus Area Personalized Health and Related Technologies.

**Dr Núria Casacuberta Arola** (\*1982), currently Senior Researcher at ETH Zurich, as Assistant Professor of Physical Oceanography in the Department of Environmental Systems Science. Núria Casacuberta Arola investigates ocean circulation and, with her expert knowledge of environmental radioactivity, was able to significantly improve our understanding of the spread of radioactive contaminants in the Pacific Ocean following the Fukushima nuclear disaster. In 2020 she was awarded an SNSF PRIMA grant and an ERC Consolidator Grant. Her work brings together a number of subject areas and has resulted in the establishment of a branch of ocean circulation research that is new to Switzerland.

**Professor Eugene Demler** (\*1971), currently Full Professor at Harvard University, Cambridge, USA, as Full Professor of Theoretical Condensed Matter Physics in the Department of Physics. Eugene Demler's research concentrates on key problems of modern solid state and cold atom theory. His work lies at the intersection of various theoretical approaches and has led to very successful collaborations. In making this appointment, the Department is strengthening its research and teaching in the field of fundamental solid state physics as well as its cooperation with related experimental groups at ETH Zurich and the Paul Scherrer Institute (PSI).

**Dr Sarah Isabelle Hofer** (\*1985), currently Senior Researcher at the University of the Federal Armed Forces, Munich, Germany, as Tenure Track Assistant Professor of Learning and Technology in the Department of Humanities, Social and Political Sciences. Sarah Isabelle Hofer's research focuses on the use of learning technologies in the STEM disciplines in secondary and higher education. Her investigation of how intelligence, previous knowledge, gender and other individual characteristics interact with knowledge evaluation and teaching

methods in analogue and digital environments enables her to construct theories and put forward recommendations. In 2019 she was awarded a prestigious Jacobs Foundation Early Career Research Fellowship.

**Dr Manuela Hospenthal** (\*1986), currently Group Leader at ETH Zurich, as Assistant Professor of Molecular and Structural Biology in the Department of Biology. Manuela Hospenthal conducts research into horizontal gene transfer between bacteria, with particular reference to natural transformation. This process is of relevance to medicine because it plays a part in the spread of antibiotic resistance and other pathogenicity traits, one effect of which is to make multi-resistant infections more difficult to treat. With this appointment, the Department is strengthening multidisciplinary research in the areas of structural biology and microbiology.

**Professor Russell McKenna** (\*1982), currently Professor at the University of Aberdeen, United Kingdom, as Full Professor of Energy Systems Analysis. Russell McKenna's research focuses on decentralised multi-energy systems, especially within residential buildings and urban environments. He also has a particular interest in critical analysis of autonomous energy systems – which are currently the topic of much discussion. The appointment of Russell McKenna to this professorship and as head of the Laboratory for Energy Systems Analysis at the Paul Scherrer Institute (PSI) will enable both institutions to strengthen their collaboration in the fields of energy and the environment, as well as nuclear energy and safety.

**Professor Didier Queloz** (\*1966), currently full professor at the University of Geneva and at the Cavendish Laboratory of the University of Cambridge, United Kingdom, as Full Professor of Physics in the Department of Physics. It is thanks to Didier Queloz and Michel Mayor that an “exoplanet revolution” has transformed modern astrophysics. In 1995 he, together with his PhD supervisor, discovered the first known planet, orbiting around a Sun-like star outside our solar system. This subsequently led to the discovery and characterisation of several hundred further exoplanets. More recently, he has increasingly focused on the search for potentially inhabitable planets and has been addressing questions relating to the origins of life on Earth and the possible presence of life on other planets. Didier Queloz has received numerous prizes, culminating in his receiving the Nobel Prize for Physics in 2019. In making this appointment, ETH Zurich has gained a visionary world-class scientist who will help significantly to drive forward the establishment of the ETH Center for the Origin and Prevalence of Life now in the process of being founded.

**Professor Hua Wang** (\*1980), currently Tenured Associate Professor at the Georgia Institute of Technology, Atlanta, USA, as Full Professor of Electronics in the Department of Information Technology and Electrical Engineering. Hua Wang conducts research into integrated circuits for applications in communications, sensor technology and bioelectronics. His work has helped drive forward the miniaturisation of circuits and improve energy efficiency. Hua Wang's appointment enables ETH Zurich to strengthen the area of analogue electronics – a key technology on which all hardware developments in biology, medicine, automation and information technology depend.

**Promotion at ETH Zurich**

**Professor Tobias Schmidt** (\*1981), currently Tenure Track Assistant Professor at ETH Zurich, as Associate Professor of Energy and Technology Policy in the Department of Humanities, Social and Political Sciences. Tobias Schmidt uses his interdisciplinary background to investigate the influence of energy policy on technological change, and to draft policy recommendations for politicians and other decision-makers. His scientific productivity is remarkable, as is the number of articles he has published in leading academic journals. He is also highly esteemed as a university teacher, having been awarded the “Golden Owl” in 2016.

**New appointments at EPFL**

**Professor Edouard Bugnion** (\*1970), currently Adjunct Professor at EPFL, as Full Professor of Computer Science and Communication Systems in the School of Computer and Communication Sciences. Edouard Bugnion’s research focuses on systems and computer science infrastructures, with particular emphasis on data centres. He has achieved international recognition as a researcher during an atypical career. He started it as founder of two success companies and pursued afterwards his PhD at Stanford and an academic career at EPFL. His wide-ranging commitments include serving as a board member of Innosuisse, Logitech, the Red Cross and as a member of the Swiss National COVID-19 Science Task Force. At EPFL, he was Vice President for Information Systems from 2017 to 2020, HR director a. i. from 2019 to 2020 and was in charge of supervising the SwissCovid app. Since 2014, he has also been Academic co-Director of the Swiss Data Science Center (SDSC).

**Professor Andreas Läuchli** (\*1972), currently Full Professor and Head of Institute at the University of Innsbruck, Austria, as Full Professor of Physics in the School of Basic Sciences and as Director of the Laboratory for Computational and Theoretical Physics at PSI. Andreas Läuchli is a specialist in strongly correlated systems in the physics of condensed matter and atomic gases. He is one of the few people who combine theoretical knowledge with digital expertise. This internationally renowned researcher will boost the range of courses offered by EPFL in one of the core areas of the Institute of Physics while also developing a research programme on condensed matter at PSI and EPFL.

**Professor Florian Richter** (\*1988), currently Boas Assistant Professor at Northwestern University, Illinois, USA, as Tenure Track Assistant Professor of Mathematics in the School of Basic Sciences. Florian Richter’s work focuses on ergodic theory and discrete dynamical systems. His findings have made a significant contribution to research. In the area of dynamical systems, for example, he has discovered unexpected links with other areas of mathematics, such as additive number theory. By appointing this distinguished researcher, EPFL is strengthening the connections between the various research areas within mathematics.

### Promotions at EPFL

**Professor Andrea Ablasser** (\*1983), currently Associate Professor at EPFL, as Full Professor of Life Sciences in the School of Life Sciences. Andrea Ablasser conducts research into innate immunity, an area in which she has made significant discoveries about the mechanisms our cells use to identify and respond to foreign DNA from pathogens. She is a world pioneer in her field, having won the National Latsis Prize in 2018 and the Friedrich Miescher Award in 2021 for her outstanding research. Her work is directly connected with major medical challenges such as viral infections. In spring 2020 she lost no time in launching a research project on SARS-CoV-2.

**Professor Melanie Blokesch** (\*1976), currently Associate Professor at EPFL, as Full Professor of Life Sciences in the School of Life Sciences. Melanie Blokesch is researching the bacterium *Vibrio cholerae*, the causative pathogen of cholera. Her groundbreaking discoveries have significantly contributed to the fight against cholera. Her extensive expertise in the fields of bacteriology, parasitology and infectious diseases is of great importance to the research community and to current public health challenges. Melanie Blokesch is regarded as a leader in her field and has received a number of awards, including an ERC Consolidator Grant in 2018.

**Professor Mathias Payer** (\*1981), currently Tenure Track Assistant Professor at EPFL, as Associate Professor of Computer Science and Communication Systems in the School of Computer and Communication Sciences. Mathias Payer's research focuses on security, computer system protection and threat prevention. His research findings have frequently led to open source software that is widely used and has influenced key organisations such as Microsoft, Google, Linux, Apple or Android. An outstanding researcher, he was awarded an ERC Starting Grant and an SNSF Eccellenza Grant in 2019. Mathias Payer was a main leader in the design, development and validation of the SwissCovid app.

### Award of the title of Professor

**Dr Michael Sander** (\*1976), currently Senior Scientist in the Department of Environmental Systems Science at ETH Zurich, as Adjunct Professor at ETH Zurich. Michael Sander is an internationally acclaimed expert in redox biogeochemistry and the environmental chemistry of macromolecules. He is one of the world's leading researchers in his field. In addition, he makes a substantial contribution to teaching, and his lectures are often rated among the best in the Department.

### Departures from ETH Zurich

**Professor Stefan Feuerriegel** (\*1989), currently Tenure Track Assistant Professor of Management Information Systems in the Department of Computer Science, will leave ETH Zurich at the end of July 2021. Stefan Feuerriegel joined ETH Zurich in 2017 as a tenure track assistant professor. His research interests include the digitalisation of specific industries, such as financial services providers, the energy sector and healthcare, where he investigates the roles and impact of new information and communication technologies. He is leaving to take up an appointment at another research institution.

**Professor Yuko Ulrich** (\*1983), currently Assistant Professor of Experimental Epidemiology in the Department of Environmental Systems Science, will leave ETH Zurich at the end of July 2021. Yuko Ulrich obtained her doctorate from ETH Zurich in 2011 and returned in 2020 with the help of an ERC Starting Grant and an SNSF Eccellenza Professorial Fellowship. Her research investigates social insects and the dynamics of infections within colonies. She is leaving to take up an appointment at another research institution.

#### **Departures from EPFL**

**Professor Hervé Bourlard** (\*1956), currently Full Professor of Language Processing in the School of Engineering, is to retire at the end of September 2021. Hervé Bourlard joined EPFL as an adjunct professor in 1998 and was appointed to a full professorship in 2005. His research focuses on statistical pattern classification, signal processing, multi-channel processing, artificial neural networks and applied mathematics. EPFL's reputation has been boosted by his contributions to research and teaching, his service on a range of scientific bodies, and the industrial partnerships he has set up.

**Professor Mikhail Chapochnikov** (\*1956), currently Full Professor of Theoretical Physics in the School of Basic Sciences, will retire at the end of September 2021. Mikhail Chapochnikov joined EPFL in 2003 as a full professor and Director of the Laboratory of Particle Physics and Cosmology. Mikhail Chapochnikov's work focuses on high energy physics and cosmology. His research is of great significance for both EPFL and CERN. As one of the best-regarded researchers in physics and in the School of Basic Sciences, Mikhail Chapochnikov has won multiple awards and has made a notable contribution to enhancing our understanding of the universe.

**Professor Majed Chergui** (\*1956), currently Full Professor of Condensed Matter Spectroscopy in the School of Basic Sciences, will retire at the end of September 2021. Majed Chergui joined EPFL as a full professor in 2003. His research focuses on ultrafast spectroscopy. He pioneered picosecond and femtosecond X-ray spectroscopy and founded the Lausanne Centre for Ultrafast Science (LACUS). His results have had a considerable impact on researchers working in the same field. An internationally acclaimed researcher, he has won numerous prizes and serves on various scientific bodies, as well as being a popular teacher.

**Professor Marius Lemm** (\*1988), currently Tenure Track Assistant Professor of Mathematics in the School of Basic Sciences, will leave EPFL at the end of September 2021. Marius Lemm's research focuses on problems of mathematical physics originating in quantum physics and quantum information. His work combines several areas of mathematics, including operator theory, random matrices and partial differential equations. He is leaving to take up an appointment at another university.

**Professor Bixio Rimoldi** (\*1956), currently Full Professor of Mobile Communications in the School of Computer and Communication Sciences, will retire at the end of August 2021. Bixio Rimoldi joined EPFL as a full professor in 1997 and became Director of the Mobile Communications Laboratory. His research covers various aspects of digital communication, software-defined radio and information theory. He is an acclaimed expert whose commitment to teaching and research paved the way for the creation of a communication systems theory

group at EPFL. His work has played a significant role in establishing the leading position that EPFL currently enjoys in this field.

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

### **Enquiries**

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The ETH Board is the strategic management and supervisory body of the ETH Domain. The ETH Domain is made up of the two Federal Institutes of Technology, i.e. ETH Zurich and EPFL, as well as the four federal research institutes PSI, WSL, Empa and Eawag. The members of the ETH Board are appointed by the Swiss Federal Council. The ETH Board supervises the development plans of the institutions, is responsible for strategic management accounting and ensures coordination. It draws up the budget and the financial statements of the ETH Domain and coordinates the value maintenance and continued functionality of the properties. It is the authority responsible for appointments and represents the ETH Domain before the federal authorities. A staff assists the ETH Board in the preparation and implementation of its business.