

Meeting of the ETH Board on 12/13 December 2018

## 20 professors appointed at ETH Zurich and EPFL

**Bern, 13 December 2018 – At its meeting of 12/13 December 2018 and upon application of the President of ETH Zurich, Professor Lino Guzzella, and the President of EPFL, Professor Martin Vetterli, the ETH Board appointed a total of 20 professors and awarded the title of professor to seven individuals. It also took note of the resignations of six professors and thanked them for their services.**

### Appointments at ETH Zurich

**Professor Bryan Adey** (\*1972), currently Associate Professor at ETH Zurich, as Full Professor of Infrastructure Management. Bryan Adey's research focuses on the automation of infrastructure management in relation to roads, rail networks, waterways, water distribution networks and multiple infrastructure networks in urban areas. His research projects have attracted international attention, leading to regular invitations to prestigious universities and major industrial fairs. As head of the Institute for Construction and Infrastructure Management, Bryan Adey was a driving force behind the transition of the institute towards a unit using the most modern information technologies.

**Professor Jake Alexander** (\*1980), currently Assistant Professor at the University of Lausanne, as Assistant Professor of Plant Ecology. Thanks to his well-regarded research activities, Jake Alexander has received an ERC Starting Grant, among other awards. His research investigates the question of how climate change alters the ecological interactions between different plant species and between plants and soil organisms. His latest research results show that the differing migration rates of species play a key role in their survival. In appointing Jake Alexander as an Assistant Professor, ETH Zurich is strengthening its research and teaching on the ecological impacts of global climate change.

**Professor Kirsten Bomblies** (\*1973), currently Project Leader at the John Innes Centre and Honorary Professor at the University of East Anglia, Norwich, United Kingdom, as Full Professor of Molecular Plant Sciences. In her research, Kirsten Bomblies focuses on the interaction of plants with other organisms and on the selection forces that drive the evolution of plants. Her current research investigates the adaptive evolution of meiosis in the sexual reproduction of plants as a result of environmental stress factors, such as higher temperatures caused by climate change. With the appointment of Kirsten Bomblies, who was awarded a prestigious ERC Consolidator Grant in 2016, ETH Zurich is gaining a top international scientist who will also enhance the interaction between different departments.

**Professor Volkmar Falk** (\*1965), currently Professor at the Humboldt University of Berlin, Director of the Department of Cardiovascular Surgery at the Charité hospital in Berlin and Medical Director of the German Heart Institute in Berlin, as Full Professor of Translational Cardiovascular Technologies. His research interests lie in the field of endoscopic and minimally invasive cardiac surgery and image-guided transcatheter therapy. With his internationally recognised clinical expertise in cardiovascular diagnosis and therapy, Volkmar Falk will contribute to the development of key biomedical technologies at ETH Zurich and accelerate their translation into clinical practice. The field of cardiovascular diagnosis and therapy offers excellent opportunities for the implementation of top-level technology-focused medical teaching and research at ETH Zurich.

**Professor Rachael Garrett** (\*1983), currently Tenure Track Assistant Professor at Boston University, USA, as Tenure Track Assistant Professor of Environmental Policy. Rachael Garrett's research focuses on the causes and consequences of land use changes and the loss of woodland through deforestation and agriculture. Her work utilises different types of data, such as satellite images, population statistics and data on global trade flows and financial transactions. In appointing Rachael Garrett, ETH Zurich is

emphasising its focus on current environmental issues and strengthening the cooperation between different departments in relation to environmental policy and economics.

**Dr Lavinia Heisenberg** (\*1983), currently a post-doctoral student at ETH Zurich, as Assistant Professor of Theoretical Cosmology. Lavinia Heisenberg is a promising researcher who is working on the mathematical formulation of new theories to describe gravitation; these modify Einstein's theory of general relativity. In particular she is investigating the compatibility of these theories with the established laws of quantum physics, and studying such topics as the expansion rate of the universe. Lavinia Heisenberg has already won prestigious prizes and is the recipient of an ERC Starting Grant. Her appointment will strengthen ETH Zurich's international reputation in this field of research.

**Professor Freek Persyn** (\*1974), currently Visiting Professor at the University of Hasselt and co-owner and founding partner of the well-known architecture firm 51N4E, Brussels, Belgium, as Full Professor of Architecture and Urban Transformation. Freek Persyn belongs to a new generation of architects and urban planners who are pioneering an alternative, experimental way of working. The main focus of his research is on the multifaceted processes of the city, rather than the grand project or master plan. Through his appointment, the Department of Architecture is strengthening the interdepartmental links between the research areas of architectural design and individual building construction, and experimental practice in developing regions of the Global South.

**Dr Daniela Rupp** (\*1983), currently Research Group Leader at the Max Born Institute, Berlin, Germany, as Tenure Track Assistant Professor of Nanostructures and Ultrafast X-Ray Science. Daniela Rupp conducts research into the structure and development of highly excited plasma states in clusters and nanocrystals. This requires a fundamental understanding of non-equilibrium dynamics, as produced through the interaction of intensive X-ray radiation with clusters. Daniela Rupp is an innovative researcher whose work has attracted attention because of her use of new approaches and methods. By appointing her, ETH Zurich is broadening the field of physics at short time scales and strengthening its links with the new SwissFEL X-ray laser at the PSI.

**Professor Bernhard Schölkopf** (\*1968), currently Director at the Max Planck Institute for Intelligent Systems in Tübingen and Stuttgart, Germany, as Affiliated Professor of Empirical Inference. Bernhard Schölkopf is one of the world's leading scientists in the field of machine learning and artificial intelligence, and has received numerous awards. His work on kernel-based learning methods (especially support vector machines) has attracted considerable international attention, and it is thanks to him that this knowledge has been made available for a wide range of applications in computer science. As an Affiliated Professor, Bernhard Schölkopf will give an important boost to research and teaching at the Max Planck ETH Center for Learning Systems, unleashing new synergies. His appointment enables ETH Zurich to collaborate with the Max Planck Institute in an intensive and targeted manner.

**Professor Andreas Taras** (\*1980), currently Professor at the University of the Federal Armed Forces, Munich, Germany, as Full Professor of Steel and Composite Structures. Andreas Taras is an internationally recognised scientist with practical experience as an independent planner and consultant in construction engineering. His research focuses on topics that include the stability and plastic deformability of thin components, slabs and shells, as well as reliability and risk assessment, and sophisticated digital design and calculation methods. Through the appointment of Andreas Taras, ETH Zurich is continuing its great tradition in the field of steel and composite structures, adopting new developments in teaching and research, and ensuring with a strong link to current practice.

**Dr Michalis Vassiliou** (\*1981), currently a Senior Assistant and Lecturer at ETH Zurich, as Assistant Professor of Seismic Design and Analysis. Michalis Vassiliou focuses on the earthquake engineering sciences with particular reference to seismic protection systems, seismic isolation and self-centring systems. His recently awarded ERC Starting Grant will be used to investigate the seismic behaviour of masonry structures using scale models. He also leads a project on the analysis of rocking structures. By

appointing Michalis Vassiliou, ETH Zurich is strengthening the cooperation between research areas such as bridge construction, masonry construction, materials science and the quantification of uncertainties.

**Professor Vanessa Wood** (\*1983), currently Associate Professor at ETH Zurich, as Full Professor of Materials and Device Engineering. Vanessa Wood is a scientist who has achieved worldwide recognition and received numerous international prizes and awards, including an ERC Starting Grant. Her field of research is an excellent fit with ETH Zurich's strategy. On the one hand, she works on improving commercially available energy storage technologies, such as lithium-ion batteries. On the other, Vanessa Wood uses experimental and computational approaches in order to understand the influence of structure – from the atomistic to the macroscale – on the properties of materials and the performance of end-devices. Her promotion to a full professorship strengthens the commitment of ETH Zurich in the strategically important field of electronics and photonics.

### Appointments at EPFL

**Dr Jérôme Baudry** (\*1986), currently a post-doctoral student at the University of Geneva, as Tenure Track Assistant Professor of the History of Science and Technology. Jérôme Baudry specialises in the history of intellectual property, especially patents. The main focus of his research is on the history and sociology of technology. He is also interested in social aspects and technologies for distributed computing and crowdsourcing. At EPFL, Jérôme Baudry's work will focus on topics including how the distinction between invention and discovery emerged in the 20th century. This is very important for understanding innovation – and thus for one of the three missions of EPFL.

**Professor Camille Brès** (\*1980), currently Tenure Track Assistant Professor at EPFL, as Associate Professor of Electrical and Electronic Engineering. Since being appointed to EPFL, Camille Brès has established the Photonics Systems Laboratory, which she has guided to a leading international position. Her notable achievements include the award of an ERC Starting Grant in 2012 and an ERC Consolidator Grant in 2018. Her results in the fields of optics and light sources, for example, have helped to improve non-linear processes in fibre optic cables with practical applications in areas such as telecommunications, signal processing and remote sensing. With the promotion of Camille Brès, EPFL strengthens the key areas of optics, photonics and electronic engineering.

**Professor Clément Hongler** (\*1985), currently Tenure Track Assistant Professor at EPFL, as Associate Professor of Mathematics. Clément Hongler is a promising young scientist who has already been awarded an ERC Starting Grant in 2016 and the EPFL Latsis Prize in 2017. In his research he uses a combination of complex analysis, probability theory, discrete mathematics and statistical mechanics. His specialist area is the Ising model, which is one of the most important models used in statistical physics. Clément Hongler has quickly established himself as a top international scientist in the highly topical field of mathematical physics. His appointment at EPFL strengthens the Federal Institute's global position.

**Professor Sofia Olhede** (\*1977), currently Professor at University College, London, United Kingdom, as Full Professor of Statistics. Sofia Olhede is an internationally acclaimed expert on stochastic modelling and statistical inference from time series, as well as spatial data analysis and data network analysis. Her work, for which she has been awarded an ERC Consolidator Grant, is of fundamental importance to the development of the statistical sciences and has had a substantial influence on numerous areas of application, such as oceanography, ecology, neuroscience and finance. Sofia Olhede will make significant contributions to strategic projects at EPFL and boost the international reputation of the Federal Institute.

**Professor Jamie Paik** (\*1979), currently Tenure Track Assistant Professor at EPFL, as Associate Professor of Mechanical Engineering. Jamie Paik has established an international reputation through her innovative approaches to soft robotics and reconfigurable robotic systems. Such flexible and adaptable systems are particularly suited for use in situations where a person works in partnership with a robot –

such as when a robot is deployed as a household assistant for a disabled person. Jamie Paik's future activities will focus on the development of intuitive and functional robot surfaces which meet demanding specifications. Her highly innovative approaches will continue to enhance the international reputation of EPFL in the robotics domain.

**Professor Victor Panaretos** (\*1982), currently Associate Professor at EPFL, as Full Professor of Statistics. Victor Panaretos is one of the world's top specialists in functional data analysis – an area of statistics which concentrates on the analysis of objects as functions of infinite dimension. He has won numerous awards, including an ERC Starting Grant. His research area requires the use of very advanced mathematical and geometrical methods and a broad spectrum of probability theory. Victor Panaretos has made highly acclaimed contributions to the spectral analysis of function series and the statistical analysis of non-standardised data classes. His results are used for modelling epidemics, for example.

**Dr Pablo Rivera-Fuentes** (\*1984), currently Assistant Professor at ETH Zurich, as Tenure Track Assistant Professor of Chemical Biology. Pablo Rivera-Fuentes has a broad-ranging knowledge of molecular imaging, organic synthesis and biological chemistry. His current focus is on visualising intracellular connections in order to acquire a better understanding of the interplay between the processes occurring in cells. In recent years he has attracted considerable international attention, such as for the first small molecular probe capable of imaging esterase activity in living cells with nanometric resolution. The appointment of Pablo Rivera-Fuentes strengthens EPFL's position in the forward-looking area of chemical biology.

**Dr Lesya Shchutska** (\*1985), currently Assistant Professor at ETH Zurich, as Tenure Track Assistant Professor of High-Energy Physics. Lesya Shchutska is an internationally acclaimed and highly innovative young scientist. In 2017 she was awarded an ERC Starting Grant. Her research focuses on the search for physical phenomena beyond the standard model of particle physics. To this end, she is participating in the collaborative CMS experiment at the CERN Large Hadron Collider in Geneva. Lesya Shchutska is one of the world's leading experts in the search for supersymmetric particles. Her work at EPFL will include helping to develop and construct the particle detectors of the future.

#### **Award of the title of Professor**

**Dr Ana Cannas da Silva** (\*1968), currently Senior Scientist at ETH Zurich, as Adjunct Professor at ETH Zurich. Ana Cannas da Silva conducts research in the field of symplectic geometry and the related areas of topology and geometric analysis. In 2016, her students awarded her a "Golden Owl" for outstanding teaching.

**Dr Monika Maurhofer** (\*1963), currently Senior Scientist at ETH Zurich, as Adjunct Professor at ETH Zurich. Monika Maurhofer's research has made relevant contributions to the field of plant pathology, especially biological pest control. She has been awarded a "Golden Owl" for outstanding teaching on two occasions.

**Dr Tomaso Zambelli** (\*1969), currently Senior Lecturer at ETH Zurich, as Adjunct Professor at ETH Zurich. Tomaso Zambelli is an expert in the field of scanning probe microscopy, both in liquids and in the vacuum. In recent years he has significantly assisted the development of FluidFM technology, which is used in 3D printing, for example.

**Dr Simone Deparis** (\*1973), currently Senior Scientist at EPFL, as Adjunct Professor at EPFL. Simone Deparis is an internationally recognised scientist in the field of numerical analysis and computer-aided mathematics. He is regarded as a key mathematics lecturer at EPFL, and in 2018 he won the Credit Suisse Award for Best Teaching at EPFL.

**Dr Pascale Jablonka** (\*1965), currently Research Associate at EPFL and Director of Research at the Centre national de la recherche scientifique in Paris, France, as Adjunct Professor at EPFL. Pascale Jablonka is an internationally recognised scientist in the field of astrophysics and cosmology. Her work focuses on the formation and development of stars in galaxies and galaxy clusters.

**Dr Christopher Mudry** (\*1962), currently Research Group Leader at the PSI, as Adjunct Professor at EPFL. Christopher Mudry is a highly acclaimed theoretical physicist. He is regarded as one of the world's leading experts on the quantum field theory of condensed matter and in the rapidly developing field of the topological properties of matter.

**Dr Philippe Spaetig** (\*1968), currently Senior Scientist at the PSI and at EPFL, as Adjunct Professor at EPFL. Philippe Spaetig is a well-known expert on nuclear reactors. The main focus of his research is the relationship between microstructures and the mechanical properties of high-temperature materials.

### Departure from ETH Zurich

**Professor Hyung Gyu Park** (\*1973), currently Associate Professor of Nanosciences in Energy and Sustainability, is leaving ETH Zurich with effect from 31 December 2018. Hyung Gyu Park's research encompasses theoretical and experimental interdisciplinary studies of ultra-efficient mass transport through carbon nanotubes. He was appointed as a Tenure Track Assistant Professor at ETH Zurich in 2009.

### Departures from EPFL

**Professor Georges Abou Jaoudé** (\*1958), Associate Professor of Architecture and Computer Science, took early retirement at the beginning of August 2018. Georges Abou Jaoudé was appointed to the EPFL in 1992 and was responsible for setting up and leading the Computer and Visualisation Laboratory.

**Professor Hannes Bleuler** (\*1954), currently Full Professor of Microrobotics, is to retire at the end of February 2019. Hannes Bleuler was appointed to EPFL in 1995 and became a Full Professor in 1997. His initial work at the Federal Institute was on the use of robots for surgery; this included developing training simulators. Later, his laboratory focused on exoskeletons for paralysed people. It also worked on precision robotics for use in astrophysics, such as for astronomical experiments. A number of spin-offs have emerged from Hannes Bleuler's laboratory. He has also been active on various committees and he was given responsibility for EPFL's academic and industrial relations with Japan.

**Professor Yusuf Leblebici** (\*1962), currently Full Professor of Electronic Systems, is to leave EPFL at the end of February 2019 in order to take up the post of President of Sabanci University in Istanbul, Turkey, as of 1 March 2019. He will continue to supervise his PhD students and ongoing projects at EPFL until the end of February 2021. Yusuf Leblebici was appointed to EPFL at the beginning of 2002 and has developed the Microelectronic Systems Laboratory into a successful, internationally recognised research centre. His main areas of focus are high-speed circuits with low energy consumption, 3D computer chips and omnidirectional camera systems. Yusuf Leblebici has also developed close partnerships with well-known companies such as IBM and Samsung.

**Professor Janos Pach** (\*1954), currently Full Professor of Mathematics, is to retire at the end of July 2019. Following a successful international career, Janos Pach joined EPFL in mid-2008. He is globally regarded as a leading researcher in the field of combinatorics and discrete geometry. During his time at EPFL, he has worked with Gabor Tardos to solve key problems relating to the lower bounds for the VC-dimension of hypergraphs of geometric constructions. Janos Pach has received numerous awards and prizes in the course of his career. He has made a significant contribution to EPFL's reputation in diverse mathematical fields, and enabled many doctoral and post-doctoral students to follow a scientific career.

**Professor Nisheeth Vishnoi** (\*1976), currently Associate Professor of Computer Science and Communication Systems, is to leave EPFL at the end of 2018 in order to take up an appointment at Yale University, New Haven, USA. Nisheeth Vishnoi joined EPFL in mid-2014. He investigates fundamental questions such as the complexity of algorithms. His research also considers how processes in nature and society can be more effectively modelled using the methods of theoretical computer science. His findings have applications in areas which include economics and biology.

*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 unit assists the ETH Board in the preparation and implementation of its business.