

Meeting of the ETH Board of 8/9 July 2020

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

**At its meeting of 8/9 July 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 13 professors and awarded the title of professor to three individuals. It also took note of the resignations of two professors and thanked them for their services.**

Bern, 10 July 2020

### **Appointments at ETH Zurich**

**Professor Beatrice Acciaio** (\*1978), currently Associate Professor at the London School of Economics and Political Science, United Kingdom, as Full Professor of Mathematics. With her research, Beatrice Acciaio has contributed to all the latest areas of financial mathematics. In 2019 the London School of Economics and Political Science presented her with an Excellence in Education Award for her outstanding work as a university lecturer and supervisor. She is particularly keen to encourage women mathematicians. By appointing Beatrice Acciaio, the Department of Mathematics is strengthening the interface between financial mathematics and machine learning. ETH Zurich will benefit greatly from her work, which moves beyond the boundaries of mathematics and into the realm of industry.

**Professor Andrea Carminati** (\*1977), currently Professor at the University of Bayreuth, Germany, as Full Professor of Physics of Soils and Terrestrial Ecosystems. Andrea Carminati's work focuses on the retention and flow of water in soils, roots and plants. His research has demonstrated that physical processes in soil are of central importance to the ways terrestrial ecosystems react to extreme drought. By appointing Andrea Carminati, the Department of Environmental Systems Science is gaining further expertise in the area of soil physics and expanding an important field of research that looks at the interrelationships between climate change, land use and terrestrial ecosystems.

**Professor Niao He** (\*1990), currently Assistant Professor at the University of Illinois at Urbana-Champaign, USA, as Tenure Track Assistant Professor of Data Science. Niao He's research explores the point at which the optimisation of large-scale systems intersects with machine learning techniques. By appointing Niao He, the Department of Computer Science will strengthen its strategic orientation in the areas of machine learning and artificial intelligence. ETH Zurich expects her appointment to boost the collaboration between the Departments of Mathematics, Computer Science, as well as Information Technology and Electrical Engineering, with particular reference to the Master's course in Data Science.

**Professor Maksym V. Kovalenko** (\*1982), currently Associate Professor at ETH Zurich, as Full Professor of Functional Inorganic Materials. Maksym V. Kovalenko and his working group – which is partly based at Empa – are researching the synthesis and characteristics of different functional inorganic materials, with the goal of one day using these materials as quantum light sources, for example, or as components of high-performance batteries. He has received a number of awards, including an ERC Consolidator Grant in 2018 and ETH Zurich's Rössler Prize in 2019 for his research on bright nanoparticles.

**Professor Dylan Possamaï** (\*1985), currently Assistant Professor at Columbia University, New York, USA, as Full Professor of Mathematics. Dylan Possamaï's work focuses on stochastic analysis, stochastic optimisation problems and economic equilibrium models. He has helped to achieve a better understanding of model uncertainties and the effects of transaction costs on the behaviour of market participants. With the appointment of Dylan Possamaï, the Department of Mathematics is strengthening its research and teaching in the area where probability theory, financial mathematics and economics intersect. Important synergies will also be created, promoting collaboration with the financial, insurance and energy sectors.

**Dr Shweta Shivaji Shinde** (\*1991), currently a post-doctoral scholar at the University of California, Berkeley, USA, as Tenure Track Assistant Professor of Data Science. Shweta Shivaji Shinde's research focuses on the overlaps between trusted computing, systems security and programme analysis. The particular orientation of her research will enable her to play a leading role in making tomorrow's computing systems secure. By appointing Shweta Shivaji Shinde, the Department of Computer Science is strengthening its research in the field of information security and thus contributing to the expansion of the Zurich Information Security and Privacy Center (ZISC).

**Dr Anna Sótér** (\*1986), currently Lecturer and SNSF Ambizione Fellow at ETH Zurich, as Tenure Track Assistant Professor of Low Energy Particle Physics. Anna Sótér's research is in the area of exotic atoms, where particle physics, atomic physics and quantum optics meet. She is an acknowledged expert in laser spectroscopy of exotic helium, in which an electron is replaced by an antiproton or a negative pion. The appointment of Anna Sótér gives the Department of Physics an ideal opportunity to develop synergies between the latest forms of particle detection, quantum optics and cryogenics in order to answer fundamental questions in disciplines ranging from particle physics to cosmology.

**Professor David Steurer** (\*1984), currently Tenure Track Assistant Professor at ETH Zurich, as Associate Professor of Theoretical Computer Science. David Steurer's research investigates fundamental questions regarding efficient computation (complexity theory), with particular reference to optimisation and data analysis. The many awards that David Steurer has won include the prestigious Held Prize from the U.S. National Academy of Sciences and an ERC Consolidator Grant, both of which he received in 2018. David Steurer has considerable teaching experience in the areas of algorithms, complexity theory, optimisation theory and data analysis.

### **Appointments at EPFL**

**Dr Josie Hughes** (\*1992), currently Postdoctoral Associate at Massachusetts Institute of Technology (MIT), Boston, USA, as Tenure Track Assistant Professor of Mechanical Engineering. Josie Hughes conducts research into the design of intelligent data-driven systems with a main emphasis on robotics. The "intelligence" of her robots is based on their mechanical structure, instead of the individual parts being controlled externally. A researcher known for her unique creativity, she has developed a mechanical hand mounted on a robot's arm which can play simple musical pieces on a piano. Josie Hughes will contribute actively to the future of research and teaching in mechanical engineering at EPFL.

**Dr Sanidhya Kashyap** (\*1988), who has recently been awarded a doctorate by the Georgia Institute of Technology in Atlanta, USA, as Tenure Track Assistant Professor of Computer Science and Communication Systems. Sanidhya Kashyap works on operating systems, one of the major areas of computer science. He has achieved important advances through his research, with particular regard to efficiency, reliability, security and large data volumes. His results have even been applied by major companies such as Amazon and Google. At EPFL, Sanidhya Kashyap will not only respond to current needs but also play a pioneering role in future developments.

**Professor Florent Krzakala** (\*1976), currently Professor at Sorbonne University and Researcher at the Ecole normale supérieure, Paris, France, as Full Professor of Electrical Engineering/ Electronics and of Physics. Florent Krzakala has employed his interdisciplinary approach to establish new areas of research at the intersection of mathematics, physics and computer science. He is a pioneer in the field of statistical physics applied to machine learning and to signal processing. In addition to establishing a research programme in these areas, this internationally acclaimed researcher brings an extensive network of contacts that will benefit EPFL.

**Professor Jürg Schiffmann** (\*1974), currently Tenure Track Assistant Professor at EPFL, as Associate Professor of Mechanical Engineering. Jürg Schiffmann's main areas of interest are the aerodynamics of small-scale compressors and turbines, gas-lubricated bearings, and automated design and optimization methodologies. His research is particularly noted for its applications, having collaborated closely with partners from industry throughout his career. Over the medium to long term, he plans for his research to contribute to reducing primary energy consumption and CO<sub>2</sub> emissions in the context of the energy transition at the domestic level.

**Dr Lenka Zdeborová** (\*1980), currently Director of Research at the Institut de physique théorique du CEA Saclay, Gif-sur-Yvette, France, as Associate Professor of Physics and of Computer Science and Communication Systems. Lenka Zdeborová is an internationally renowned researcher in the field of statistical physics who has won multiple awards, including an ERC Starting Grant in 2016. Her unparalleled expertise will make a significant contribution to the creation of new synergies with other research areas at EPFL, such as mathematics, materials science and information science, as well as with industry – and notably among leading IT companies.

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

**Dr Martin Gossner** (\*1972), currently Lecturer in the Department of Environmental Systems Science at ETH Zurich as well as Group Leader and Senior Scientist at WSL, as Adjunct Professor at ETH Zurich. Dr Martin Gossner is an outstanding, internationally acclaimed and highly regarded animal ecologist. He is one of the leading proponents of biodiversity research both in Switzerland and globally, and has an excellent publication record.

**Dr Sandro Carrara** (\*1964), currently Senior Scientist in the School of Engineering at EPFL, as Adjunct Professor at EPFL. Sandro Carrara's work has a focus on developing devices for diagnostics, medical treatment and prevention. An internationally known researcher, who has been awarded numerous prizes, he is also a pioneer in the field of memristors for biosensing applications.

**Dr Gerardo Turcatti** (\*1959), currently Senior Scientist at the EPFL's School of Life Sciences, as Adjunct Professor at EPFL. In 2005 Gerardo Turcatti set up a technology platform at EPFL for biomolecular high-throughput screening (the Biomolecular Screening Facility, or BSF), which has served as the starting point for numerous research projects. Through his own R&D programmes the platform has been cutting edge in this field.

#### **Departure from ETH Zurich**

**Professor Joao Matos** (\*1979), currently Assistant Professor of Cellular Biochemistry, will leave ETH Zurich with effect from 31 August 2020. Joao Matos became an Assistant Professor at ETH Zurich in 2014. He and his group conducted research on DNA recombination and genome stability in relation to the various types of cell division. His research is particularly important for understanding, and thus potentially preventing, the development of certain inherited diseases and cancers. Joao Matos is leaving ETH Zurich in order to take up a full professorship at the University of Vienna.

#### **Departure from EPFL**

**Professor Stephan Morgenthaler** (\*1955), currently Full Professor of Statistics, is to retire at the end of September 2020. Stephan Morgenthaler joined EPFL as an Associate Professor in 1988 and was promoted to Full Professor in 1991. His research covers areas which include the application of statistical models and large databases. During his long career at EPFL, this internationally acclaimed, multiple award-winning researcher has held various management posts and been a member of numerous appointments committees at EPFL, ETH Zurich and several international institutions.

*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.