

Meeting of the ETH Board on 6/7 March 2019

9 professors appointed at ETH Zurich and EPFL

Bern, 8 March 2019 – At its meeting of 6/7 March 2019 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 nine professors and awarded the title of professor to two individuals. It also took note of the resignations of nine professors and thanked them for their services.

Appointments at ETH Zurich

Professor Niko Beerenwinkel (*1973), currently Associate Professor at ETH Zurich, as Full Professor of Computational Biology. Niko Beerenwinkel is a leading researcher in the field of bioinformatic and biomathematical cancer research. His work has led to a deeper understanding of the heterogeneity and evolution of mutations within individual tumours, thus providing valuable information for the development of new cancer treatments in the future. Niko Beerenwinkel is also actively engaged in delivering professional training in clinical bioinformatics. He contributes to ETH Zurich in many other ways, including as co-founder of the Competence Centre for Personalised Medicine and, since February 2019, as Department Head.

Dr Valentina Boeva (*1981), currently Group Leader at Université Paris Descartes, France, as Tenure Track Assistant Professor of Biomedical Informatics. Valentina Boeva develops analysis algorithms which are used to investigate changes in genetic information and epigenetic imprinting in tumours. This work is contributing to a deeper understanding of the disease. She uses a combination of methods derived from machine learning, statistics and molecular biology in order to decode the role of epigenetic modifications in the formation and development of cancer. With her expertise in the cutting-edge research field of cancer epigenetics, Valentina Boeva will considerably strengthen the study of medical informatics in the Department of Computer Science.

Dr Peter Feller (*1986), currently a post-doctoral student at ETH Zurich, as Assistant Professor of Mathematics. Peter Feller focuses on the fields of geometry and topology. His research topics include topological surfaces embedded in four-dimensional space, singularities of complex algebraic curves and the related knot theory. He is not only an innovative researcher, but also an enthusiastic teacher. By appointing Peter Feller, the Department of Mathematics is strengthening and expanding its position in the field of geometry. Peter Feller successfully applied to the Swiss National Science Foundation for funding for an SNSF Eccellenza Professorial Fellowship, which is being used to finance the assistant professorship.

Professor Louise Harra (*1969), currently Professor at University College, London, United Kingdom, and designated Director of the Physikalisch-Meteorologisches Observatorium Davos/World Radiation Center (PMOD/WRC) as Affiliated Professor of Solar Astrophysics. Louise Harra is one of the world's leading experts in the field of solar physics. The focus of her research is on the trigger of solar flares and coronal mass ejections, and her results have a substantial impact on instrumentation, particularly in relation to space travel. Louise Harra is currently Principal Investigator of the Hinode EUV Imaging Spectrometer (EIS) and Co-Principal Investigator of the EUV Imager for the forthcoming ESA Solar Orbiter mission 2020. By appointing her as an affiliated professor, the Department of Physics is strengthening its activities in the field of astrophysics and, by intensifying its cooperation with the PMOD/WRC, is opening up new possibilities for space missions.

Dr Inge Katrin Herrmann (*1985), currently Group Leader at Empa, as Assistant Professor of Nanoparticle Systems Engineering. Inge Katrin Herrmann conducts research into nanoparticle synthesis,

characterisation and functionalisation, as well as microscopy and spectroscopy, and translational nanomedicine. She collaborates with clinical and academic partners to develop particle-based solutions in the fields of disease aetiology, diagnostics and drug delivery. The appointment of Inge Katrin Herrmann enables the Department of Mechanical and Process Engineering to expand its research portfolio. Inge Katrin Herrmann successfully applied to the Swiss National Science Foundation for funding for an SNSF Eccellenza Professorial Fellowship, which is being used to finance the assistant professorship.

Professor Lucio Isa (*1979), currently Assistant Professor at ETH Zurich, as Associate Professor of Soft Materials and Interfaces. Lucio Isa's research focuses on the properties of liquid-liquid and liquid-solid interfaces, especially the behaviour of nanoparticles at the liquid-liquid interface. His innovative research on "raspberry-like" colloids produced a breakthrough: a method of stabilising both water-in-oil and oil-in-water emulsions. These innovative systems can be used as tools to create special nanoparticle structures with a wide range of applications, and have already led to ground-breaking patents. By appointing Lucio Isa, ETH Zurich is further enhancing its leading global position for research into interfaces and surfaces.

Dr Madhav Jagannathan (*1985), currently a post-doctoral student at the University of Michigan, USA, as Assistant Professor of Cellular Dynamics. Madhav Jagannathan investigates the role of non-coding, highly repetitive DNA – known as satellite DNA – which is found in particular chromosome regions. His work is set to provide important new insights into the way genome organisation affects genetic stability, and into the causes of genetic conflicts between related species. The appointment of Madhav Jagannathan will enable the Department of Biology to strengthen its research into the molecular mechanisms of cellular organisation and function, and expand its focus on the biology of the nucleus to include evolutionary questions.

Dr Thomas Van Boeckel (*1985), currently a post-doctoral student at ETH Zurich, as Assistant Professor of Health Geography and Policy. Thomas Van Boeckel is working on the application and development of statistical processes in order to understand the spatial variation of infectious diseases. One of his main areas of research is the spatial distribution of antibiotic use in human medicine and animal husbandry. He maps antibiotic resistance in low-to-middle-income countries, where hardly any data is collected regarding the prevalence of this phenomenon. Through the appointment of Thomas Van Boeckel, ETH Zurich is boosting its expertise in an area of great relevance to health policy. Thomas Van Boeckel successfully applied to the Swiss National Science Foundation for funding for an SNSF Eccellenza Professorial Fellowship, which is being used to finance the assistant professorship.

Professor Julia Vogt (*1982), currently Assistant Professor at the University of Basel, as Tenure Track Assistant Professor of Medical Data Science. The main focus of Julia Vogt's research is on machine learning methods in the life sciences, and the use of algorithms for biomedical data analysis. These modern information processes improve medical data analysis and contribute to a better understanding of diseases. Julia Vogt has gained valuable teaching experience and runs a number of seminars on machine learning. Her appointment will enable ETH Zurich to strengthen the bridge between informatics, the life sciences and medicine – a bridge that is of key importance to the data sciences.

Award of the title of Professor

Professor Mikaela Iacobelli (*1987), currently Tenured Assistant Professor at Durham University, United Kingdom, and Visiting Professor at ETH Zurich, as Adjunct Professor at ETH Zurich. Mikaela Iacobelli is an internationally recognised researcher in the field of statistical mechanics. She analyses partial differential equations in kinetic theory and investigates problems to do with the quantization of measures. From April 2019, she will be working as a Senior Scientist at ETH Zurich.

Dr André S.H. Prévôt (*1965), currently Group Leader at PSI, as Adjunct Professor at ETH Zurich. André Prévôt conducts research into physico-chemical processes in the contaminated atmospheric boundary layer. His work has resulted in key insights into the source attribution and characterisation of tropospheric pollutants and organic aerosols.

Departures from ETH Zurich

Professor Mario Fontana (*1954), currently Full Professor of Structural Engineering, is to retire at the end of July 2019. Mario Fontana joined ETH Zurich in 1992 and was appointed to his present post in 1995. From the very beginning, his research focused on steel, timber and composite construction. His work on fire behaviour and fire prevention has enabled him to promote appropriate construction methods. During his professorship, Mario Fontana has also served on many national and international committees, including the Swiss Society of Engineers and Architects, the Technical Committee on Fire Prevention of the Cantonal Fire Insurance Association, and the International Association for Bridges and Structural Engineering.

Professor Thomas Gross (*1954), currently Full Professor of Computer Science, is to retire at the end of July 2019. Thomas Gross has worked at ETH Zurich since 1994 and was appointed to his present post in 1998. His main research interest is software construction and he has developed various tools for analysing and measuring the performance of parallel programmes. He investigates the extent to which software on modern processors can replace complicated hardware. Thomas Gross is a dedicated teacher, and in 2016 he was awarded the “Golden Owl” for outstanding teaching. In addition, he served as Head of the Computer Systems Institute for many years and was appointed by the then rector as Delegate for the Network for Educational Technology.

Professor Johan Lilliestam (*1980), currently Assistant Professor of Renewable Energy Policy, will leave ETH Zurich at the end of March 2019 in order to take up a professorship at the University of Potsdam, Germany. Johan Lilliestam explores the social and ecological consequences of switching to sustainable energy systems. He attempts to identify key factors that may prevent such a switch or have an impact on the attractiveness of sustainable energy systems.

Professor Massimo Morbidelli (*1954), currently Full Professor of Chemical Reaction Engineering, is to retire at the end of July 2019. Massimo Morbidelli was appointed to his present post in 1995. The main emphasis of his current research is on reaction and separation technology with a particular focus on colloids, polymer reactions and processes. He was Head of the Department of Chemistry and Applied Biosciences for several years, and Director of Studies for Chemical Engineering for nearly twenty years. Massimo Morbidelli is an enthusiastic and inspiring university lecturer who was awarded the “Golden Owl” for outstanding teaching. He is also the co-founder of two spin-offs from ETH Zurich.

Professor Renato Paro (*1954), currently Full Professor of Biosystems at ETH Zurich and holder of a dual professorship with the University of Basel, is to retire at the end of July 2019. Following a successful international career, Renato Paro was appointed to his present post in 2006. His main area of research lies in the analysis of mechanisms in epigenetics; he investigates how epigenetic mechanisms enable cells to retain their identities and contribute to the development of complex organs and tissues. Renato Paro was the founding director of the Centre for Biosystems Science and Engineering, and from 2007 he was the first person to head its successor institution – the Department of Biosystems of ETH Zurich, which is located in Basel. He helped turn the department into a leading research centre for systems biology and synthetic biology.

Professor Lesya Shchutska (*1985), currently Assistant Professor of Experimental Particle Physics, will leave ETH Zurich at the end of March 2019 in order to take up a Tenure Track Assistant Professorship at EPFL. Lesya Shchutska was a Research Associate at ETH Zurich from 2013, and was appointed to an

Assistant Professorship in 2018 when she was awarded an ERC Starting Grant. She is an internationally recognised expert in the search for supersymmetric particles. Her current research focuses on the search for physical phenomena beyond the standard model of particle physics.

Professor Halil Mete Soner (*1958), currently Full Professor of Financial Mathematics, is to take early retirement at the end of October 2019. Mete Soner was appointed to ETH Zurich in 2009. He is regarded as a leading mathematician in the fields of the theory of partial differential equations, stochastic control theory and financial mathematics. His contribution has helped enhance the outstanding global position of ETH Zurich in the discipline of financial mathematics. In addition, Mete Soner has been very active as a university lecturer and as a supervisor of doctoral and post-doctoral students. From August 2017 to the end of January 2019 he was also Head of the Department of Mathematics.

Professor Matthias Troyer (*1968), currently Full Professor of Computational Physics, will leave ETH Zurich at the end of June 2019 in order to work for Microsoft in the USA. Matthias Troyer was appointed to his present post in 2005. He conducts research into the development of new simulation algorithms for quantum systems and the numerical simulation of quantum phase transitions, strongly correlated fermionic systems, ultracold atomic gases and quantum computers. His contribution to teaching includes establishing the field of Computational Physics within the Master's programme.

Departure from EPFL

Professor Leonid Rivkin (*1954), currently Full Professor of Particle Accelerator Physics, will retire with effect from 1 September 2019. Leonid Rivkin took up his present post in 2006 and was at the same time put in charge of the Large Research Facilities at the PSI, where he has worked since 1989. In 2017, he was made Deputy Director of the PSI. He is regarded as one of the leading international scientists in the field of particle accelerators and has made a significant contribution to many of the world's most important accelerators. More recently, Leonid Rivkin set up the Swiss Collaboration on Accelerator Research and Technology (CHART). His research and teaching activities have helped to foster EPFL's relationships with PSI and CERN, thus strengthening EPFL's international outlook.

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

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