# ETH BOARD

Meeting of the ETH Board of 23/24 September 2020
# 11 new professors appointed at ETH Zurich and EPFL

**At its meeting of 23/24 September 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 two individuals. It also took note of the resignations of 11 professors and thanked them for their services.**

Bern, 25 September 2020

**Appointments at ETH Zurich**

**Professor Nicola Aceto** (*1982), currently Assistant Professor and group leader at the University of Basel, as Associate Professor of Molecular Oncology in the Department of Biology. Nicola Aceto's work focuses on the metastasis of cancer cells. His outstanding research findings are used as a basis for ongoing clinical studies of interventions which target circulating tumour cells, as well as trials of breast cancer treatments. Nicola Aceto received an ERC Starting Grant for this work in 2016 and won the Friedrich Miescher Award in 2020. His appointment strengthens the interaction between oncology and haematology at the university hospitals of Basel and Zurich.

**Professor Bernd Bodenmiller** (*1979), currently Associate Professor of Quantitative Cell Biology at the University of Zurich, as Associate Professor of Quantitative Biomedicine in the Department of Biology. He will hold a dual professorship with the University of Zurich. Bernd Bodenmiller's research investigates the mechanisms of cancer. New methods of exploring cancer tissue have been developed under his direction. These are currently being used in numerous research projects and clinical trials. Bernd Bodenmiller has developed an excellent international network and has received several awards, including an ERC Starting Grant and an ERC Consolidator Grant. In addition, he is the founding director of the Department of Quantitative Biomedicine at the University of Zurich.

**Professor Torsten Hoefler** (*1981), currently Associate Professor at ETH Zurich, as Full Professor of Scalable Parallel Computing in the Department of Computer Science. Internationally, Torsten Hoefler is one of the leading scientists in the field of high-performance computing. His work focuses in particular on improving the performance of highly scalable parallel systems and developing numerous applications in the areas of weather, climate simulation and machine learning. Since 2012 he has been head of the Scalable Parallel Computing Laboratory. Torsten Hoefler has won many awards, including the Latsis Prize from ETH Zurich and an ERC Starting Grant. He is also a very committed and popular lecturer who encourages his students to participate in his research.

**Professor Marina Krstic Marinkovic** (*1984), currently Junior Professor at Ludwig Maximilian University in Munich, Germany, as Tenure Track Assistant Professor of Computational Physics in the Department of Physics. Marina Krstic Marinkovic conducts research in the field of computational physics. She is a founding member of the RC* collaboration, which formulates algorithms for calculating and simulating interactions in particle physics. She also develops

numerical methods for explaining the results of CERN experiments. Her software packages are now used throughout Europe for making calculations within the Standard Model of particle physics.

**Professor Leonardo Senatore** (*1978), currently Associate Professor at Stanford University in Palo Alto, USA, as Full Professor of Theoretical Physics in the Department of Physics. Leonardo Senatore's research deals with theoretical cosmology, particularly the analysis of cosmic background radiation, the large-scale structure of the universe and gravitational waves. He has developed innovative methods for the quantitative description of cosmological phenomena, and was the recipient of a New Horizons in Physics Prize – a prestigious award aimed at early-career researchers. The appointment of Leonardo Senatore enables ETH Zurich to strengthen its research and teaching in fundamental physics and theoretical cosmology.

**Professor Shinichi Sunagawa** (*1978), currently Assistant Professor at ETH Zurich, as Associate Professor of Microbiome Research in the Department of Biology. Shinichi Sunagawas' research concentrates on microbial communities in oceans and the human gut. Among other activities, he is bioinformatics coordinator for the Tara Oceans expedition, a major international project which is studying the biological diversity of the oceans. The appointment of Shinichi Sunagawa enables the Department of Biology to boost interdepartmental cooperation in the fields of environment, health and medicine. His research will create further synergies with the University of Zurich and Zurich University Hospital, and assist the NCCR Microbiomes national research programme.

**Professor Marcy Zenobi-Wong** (*1963), currently Associate Professor at ETH Zurich, as Full Professor of Tissue Engineering and Biofabrication in the Department of Health Sciences and Technology. Marcy Zenobi-Wong's research interests focus on cartilage repair and biofabrication. Thanks to her acknowledged expertise in bioprinting as well as two-photon polymerisation, polymer chemistry and tissue biology, she is a leading specialist in the development and application of new biomaterials. Her ability to combine mechanical and biological perspectives allows Marcy Zenobi-Wong to pursue innovative paths as she applies the latest knowledge of cellular and mechanobiology to regeneration methods in tissue engineering.


**Appointments at EPFL**

**Dr Antoine Bosselut** (*1991), currently postdoctoral researcher at Stanford University, California, USA, as Tenure Track Assistant Professor of Computer Science and Communication Systems. Antoine Bosselut conducts research into machine learning, natural language processing, deep learning and artificial intelligence. He brings new approaches to these subjects. Although he is still at the start of his career, he has already made a significant contribution to research in this forward-looking area. With the appointment of Antoine Bosselut, EPFL is enhancing its expertise in this field of research.

**Professor Michele Ceriotti** (*1982), currently Tenure Track Assistant Professor at EPFL, as Associate Professor of Materials Science in the School of Engineering. Michele Ceriotti is regarded as a world leader in the field of enhanced simulations for computational materials research. He has initiated an unsupervised machine learning paradigm that combines accurate

simulation of electronic structures with long time and large scale models, allowing the description of disordered or out-of-equilibrium systems. His work is applied in industry. His appointment enables EPFL to improve key academic collaborations, boost teaching quality and strengthen an innovative area of research that combines physics and computer science with materials science.

**Professor Johannes Gräff** (*1978), currently Tenure Track Assistant Professor at EPFL, as Associate Professor of Life Sciences in the School of Life Sciences. Johannes Gräff has gained international recognition as a neuroscientist who has done pioneering work on the epigenetic bases of memory. He has won numerous awards and registered two patents. His work is highly innovative and has made a significant contribution to the present level of knowledge in this relatively new area of research, including our understanding of the role played by epigenetic changes in the development of Alzheimer's disease. His laboratory is an important and conspicuous component of the study of molecular neuroscience at EPFL.

**Professor Oleg Yazyev** (*1981), currently Tenure Track Assistant Professor at EPFL, as Associate Professor of Theoretical Physics in the School of Basic Sciences. Oleg Yazyev is one of the world's leading researchers in condensed matter physics. He is particularly interested in the simulation of energy and defects in graphene, as well as in the discovery of new 2D materials. His numerous articles in well-regarded publications have become standard works of references and his research has been awarded an ERC Starting Grant and the EPFL's Latsis Prize. Oleg Yazyev is a highly creative researcher and a dedicated teacher and mentor.


**Award of the title of Professor**

**Dr Fadoua Balabdaoui** (*1975), currently Senior Scientist in the Department of Mathematics at ETH Zurich, as Adjunct Professor at ETH Zurich. Fadoua Balabdaoui is an internationally acclaimed mathematical statistician whose work as a teacher is greatly appreciated by her students. Her main research focus is on nonparametric inference under qualitative constraints, avoiding restrictive parametric model assumptions.

**Dr Alireza Karimi** (*1964), currently Senior Scientist in the School of Engineering at EPFL, as Adjunct Professor at EPFL. Alireza Karimi is a specialist of automatic systems in the field of robust control and system identification. He has collaborated with CERN by developing control algorithms for particle guidance based on techniques developed by his team.


**Departures from ETH Zurich**

**Professor Johann W. Blatter** (*1955), currently Full Professor of Theoretical Physics in the Department of Physics, will retire at the end of January 2021. Johann W. Blatter studied physics at ETH Zurich and obtained his doctorate from the same institution in 1983. After many years spent working in the research centre of a large company, he joined ETH Zurich as an associate professor in 1993 and was promoted to full professor three years later. He has an excellent track record as a researcher in the field of solid-state and statistical physics. Since 1999 he has also made an outstanding contribution as a Delegate of the President for Professorial Appointments and a member of the Strategy Commission of ETH Zurich.

**Professor Konstantinos Boulouchos** (*1955), currently Full Professor of Aerothermochemistry and Combustion Systems in the Department of Mechanical and Process Engineering, is to retire at the end of January 2021. Konstantinos Boulouchos became Head of the Combustion Research Laboratory at the Paul Scherrer Institute (PSI) in 1995 and was appointed to a full professorship at ETH Zurich in 2002. His work focuses on the area of laminar and turbulent chemically reactive systems in energy conversion technologies. The transfer of knowledge to industry is a key component of his activities. In addition, for over ten years Konstantinos Boulouchos has participated in a dialogue with politicians, industry and society on issues concerned with energy and mobility.

**Professor Donald Hilvert** (*1956), currently Full Professor of Organic Chemistry in the Department of Chemistry and Applied Biosciences, will retire at the end of January 2021. Donald Hilvert joined ETH Zurich as a full professor in 1997. He has held a number of management positions and for many years was a Delegate of the President for Professorial Appointments in addition to carrying out a wide range of teaching and research work. His research has provided valuable insights into the structure, dynamics and function of proteins, and has thus attracted a number of awards. Donald Hilvert also discovered the first *de novo* biocatalysts.

**Professor Horst-Michael Prasser** (*1955), currently Full Professor of Nuclear Energy Systems in the Department of Mechanical and Process Engineering, is to retire at the end of January 2021. Horst-Michael Prasser joined ETH Zurich as a full professor in 2006, focusing chiefly on thermal fluid dynamics in the context of nuclear facilities. He played a major role in setting up the Master's programme in nuclear engineering, which has been offered jointly with EPFL since 2008. From 2007 to 2017 he also headed the Laboratory for Thermal-Hydraulics at PSI, where he was instrumental in establishing a deuterium-deuterium plasma neutron source suitable for fast neutron imaging.

**Professor Michael Struwe** (*1955), currently Full Professor of Mathematics in the Department of Mathematics, will retire at the end of January 2021. Michael Struwe joined ETH Zurich as an assistant professor in 1986, being promoted to associate professor in 1990 and full professor in 1993. In addition, he is a Delegate of the President for Professorial Appointments. His research encompasses nonlinear partial differential equations and calculus of variations, and their applications in mathematical physics and differential geometry. Michael Struwe's books on methods applicable to calculus of variations and geometric wave equations have become standard works of reference. He has won numerous awards, including for his work as a teacher.

**Professor Alain-Sol Sznitman** (*1955), currently Full Professor of Mathematics in the Department of Mathematics, is to retire at the end of January 2021. Alain-Sol Sznitman was appointed to a full professorship at ETH Zurich in 1991. His research interests lie in the field of probability theory with a special focus on topics linked to physics. As a top researcher of international renown, he has won numerous awards and serves on several scientific bodies. In addition, Alain-Sol Sznitman edits various academic journals and is the author of a large number of publications. For several years he was also a Delegate of the President for Professorial Appointments at ETH Zurich.

**Professor Antonio Togni** (*1956), currently Full Professor of Organometallic Chemistry in the Department of Chemistry and Applied Biosciences, will retire at the end of January 2021. Antonio Togni obtained both his first degree and his doctorate at ETH Zurich before gaining professional experience in postings elsewhere. In 1992 he returned to ETH Zurich as an assistant professor. He was promoted to associate professor in 1995 and full professor in 1999. Organometallic and fluoro-organic chemistry are the main focus of his research. Since 2016 Antonio Togni has served as Vice-Rector for Doctoral Studies at ETH Zurich, an important office to which he devotes careful attention. He has won a number of awards for his research and is also a dedicated teacher.

**Professor Caroline Uhler** (*1983), currently Full Professor of Machine Learning, Statistics and Genomics in the Department of Biosystems, will leave ETH Zurich at the end of September 2020. Caroline Uhler's research investigates the basic principles and applications of graphical models, a class of statistical models for modelling high-dimensional data. She is an elected member of the International Statistical Institute. Her research has won several awards. She is leaving ETH Zurich to return to the Massachusetts Institute of Technology (MIT).

**Professor Thomas Vogel** (*1955), currently Full Professor of Structural Engineering in the Department of Civil, Environmental and Geomatic Engineering, is to retire at the end of January 2021. Thomas Vogel studied at ETH Zurich and was appointed to an associate professorship there in 1992. He has been a Full Professor since 1995. His research activities include testing reinforced concrete structures and investigating the robustness of supporting and reinforced concrete structures, and their ability to withstand natural hazards. Thomas Vogel has made an outstanding contribution to the department in a variety of roles. He is highly esteemed by undergraduates and doctoral students, both as a university lecturer and as a supervisor.

**Departures from EPFL**

**Professor Elena Goun (formerly Dubikovskaya)** (*1977), currently Tenure Track Assistant Professor of Bioorganic Chemistry in the School of Basic Sciences, left EPFL at the end of August 2020. Elena Goun advocates an interdisciplinary approach which combines synthetic chemistry, optical imaging and an understanding of cell functions at molecular level in order to solve fundamental problems in biology and medicine. In particular, she has developed a number of new, non-invasive imaging processes that are used to investigate the molecular signatures of cancers and metabolic disorders.

**Professor Arjen Lenstra** (*1956), currently Full Professor of Cryptology and Algorithmic Number Theory in the School of Computer and Communication Sciences, will retire at the end of March 2021. Arjen Lenstra was appointed to his present post in 2006. He is an acclaimed researcher who has received many awards and registered several patents. Two of his algorithms revolutionised number theory: the LLL algorithm, which plays an essential role in wireless communication and has numerous applications in cryptology and mathematics, and the number field sieve (NFS algorithm), which is currently the best algorithm for factoring large integers. His research is applied in a variety of areas, including information security.

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

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