

Meeting of the ETH Board on 8/9 March 2017

9 professors appointed at ETH Zurich and EPFL

Bern, 10 March 2017 – In response to the proposals received from the President of ETH Zurich, Professor Lino Guzzella, and the President of EPFL, Professor Martin Vetterli, the ETH Board resolved at its meeting of 8/9 March 2017 to appoint a total of 9 professors and award the title of professor to 5 individuals; it also acknowledged the resignation of 7 professors and thanked them for their services.

Appointments at ETH Zurich

Professor Karsten M. Borgwardt (*1980), currently Associate Professor at ETH Zurich, as Full Professor of Data Mining. Karsten Borgwardt is a highly renowned scientist who works on one of the key problems for the modern life sciences – efficient computer-based searches in fast-growing datasets. These search methods are important for tasks such as finding indications of the genetic causes of complex diseases from genome sequencing data, and developing new methods of diagnosis and treatment. He received an SNSF Starting Grant in 2014. Karsten Borgwardt's appointment as Full Professor further reinforces ETH Zurich's strategic research focus on big data and personalised medicine.

Professor Eleni Chatzi (*1981), currently Tenure Track Assistant Professor at ETH Zurich, as Associate Professor of Structural Mechanics. Eleni Chatzi's award-winning research, for which she received an ERC Starting Grant in 2015, deals mainly with structural health monitoring and damage detection, identifying and regulating nonlinear structural systems, smart sensor technology, smart materials and structures, as well as structural dynamics and random vibrations. Eleni Chatzi and her work are therefore an ideal complement to the research activities of the Institute of Structural Engineering. By acting as a role model, she also makes the career of civil engineering more attractive to female students.

Professor Christian Degen (*1976), currently Tenure Track Assistant Professor at ETH Zurich, as Associate Professor of Spin Physics. Christian Degen has received worldwide recognition for his research findings on weak magnetic signals in biological and inorganic systems. In 2013 he received an ERC Starting Grant. Christian Degen's current objective at ETH Zurich is to combine magnetic resonance with atomic force microscopy. If the advantages of both processes are fully harnessed, it should be possible to produce three-dimensional high-resolution images of individual viruses, for example. Christian Degen's research ideally complements the activities of other research groups working with novel quantum systems.

Appointments at EPFL

Professor Katrin Beyer (*1977), currently Tenure Track Assistant Professor at EPFL, as Associate Professor of Structural Engineering. Katrin Beyer is acknowledged to be one of the world's leading scientists in the field of earthquake-resistant construction. She gained recognition for her results on the safety of unreinforced masonry structures, for example, and her findings are now included in internationally observed guidelines. In addition, she is known for her experimental approaches and the ability to work on multidimensional problems. Katrin Beyer's research activity has helped push EPFL and Switzerland to the forefront of research in the field of earthquake-resistant construction. Her appointment further strengthens this position.

Dr Dolaana Khovalyg (*1983), currently Postdoctoral Fellow at the Technical University of Denmark (DTU) near Copenhagen, as Tenure Track Assistant Professor of Energy and Building Systems Technology. Dolaana Khovalyg's research interests span the areas of heat transfer and fluid mechanics with applications in heating, ventilation and air conditioning for buildings. Her research efforts on

developing energy efficient thermal systems for sustainable and comfortable living environments will complement the activities of EPFL at the smart living lab in Fribourg.

Professor Daniel Kressner (*1978), currently Associate Professor at EPFL, as Full Professor of Mathematics. Daniel Kressner is a leading global specialist in numerical linear algebra and its use in high-performance computers. Algorithms he developed are now used throughout the world, providing solutions to questions that were previously impossible to answer even with the fastest computers. Daniel Kressner also has the rare gift of mastering the mathematical foundations of high-performance computing as well as the technical aspects of implementation. His expertise is in much demand in various faculties of EPFL and will continue to make a significant contribution to the Federal Institute's international reputation in the future.

Professor Pedro Miguel Reis (*1978), currently Associate Professor at the Massachusetts Institute of Technology (MIT), Cambridge, USA, as Full Professor of Mechanical Engineering. Pedro Miguel Reis is a multi-award-winning expert in the mechanics and physics of solids and structures and in the stability of thin objects. His research, which combines theory, numerical simulation and experimentation, find application in many fields such as geothermal energy and the construction industry and offers new orientations in mechanical engineering and technology. The appointment of Pedro Miguel Reis enables EPFL to strengthen its transdisciplinary research further.

Professor Emmanuel Rey (*1971), currently Tenure Track Assistant Professor at the EPFL, as Associate Professor of Construction Technologies and Sustainable Architecture. Emmanuel Rey makes significant contributions to the development of knowledge and methodologies for the sustainability of the built environment. His approach is based on the integration of environmental parameters as well as sociocultural and economic aspects in urban design and architectural projects. This interdisciplinary approach facilitates novel and dynamic collaboration between architects and engineers at the interface of design and technology. Emmanuel Rey's appointment strengthens the relationships between EPFL, industry and society in a field that is of importance for a sustainable future.

Professor Ali H. Sayed (*1963), currently Distinguished Professor at the University of California, Los Angeles, USA, as Full Professor of Electrical Engineering and Electronics. Ali Sayed is a scientist who has won many awards. For many years, his research has concentrated on signal theory, with a focus on energy conservation and the use of adaptive filters. On taking up his post at EPFL, Ali Sayed is to assume the vacant position of Dean of the School of Engineering. He stands out for his clear understanding of the tasks and future directions of engineering in the 21st century. These include sustainable energy production and the convergence of the virtual and physical world as well as of electronics and biology.

Award of the title of Professor

Dr Claude Ederer (*1972), currently Senior Scientist and Lecturer at ETH Zurich, as Adjunct Professor at ETH Zurich. Claude Ederer is a globally recognised expert in the field of materials theory of ferroic systems. Before joining ETH Zurich in 2012, he worked at a number of renowned universities in the United States and Ireland.

Dr Aude Gehrmann-De Ridder (*1970), currently Senior Scientist and Lecturer at ETH Zurich, as Adjunct Professor at ETH Zurich. Aude Gehrmann-De Ridder conducts research into particle physics and investigates the prediction and interpretation of events produced by large accelerator experiments (such as the Hadron Collider at CERN in Geneva).

Dr Vadim Geshkenbein (*1965), currently Senior Scientist and Senior Lecturer at ETH Zurich, as Adjunct Professor at ETH Zurich. Vadim Geshkenbein's research focuses on statistical physics, superconductors and quantum systems. In 2001 his work in the field of vortex matter earned him the ETH Zurich Latsis Prize.

Dr Robert Grass (*1979), currently Senior Scientist and Lecturer at ETH Zurich, as Adjunct Professor at ETH Zurich. Robert Grass conducts research embracing nanoparticles, surfaces and biochemistry. His current focus is the use of DNA as an information carrier for digital data storage.

Dr Alexey Kuvshinov (*1958), currently Senior Scientist and Senior Lecturer at ETH Zurich, as Adjunct Professor at ETH Zurich. Alexey Kuvshinov is one of the world's leading scientists in the field of electromagnetic induction. He played a major role in obtaining funding for, and leading, a whole series of studies for the European Space Agency (ESA).

Departures from ETH Zürich

Professor François Diederich (*1952), currently Full Professor of Organic Chemistry, will retire at the beginning of August 2017. François Diederich was appointed to ETH Zurich in 1992. His main research areas are supramolecular chemistry, medicinal chemistry, new materials for electronics and optonics based on carbon-rich acetylenic structures, as well as fullerene chemistry and carbon allotropes. He has made significant, internationally recognised contributions to the fundamental understanding of non-binding interactions in molecular recognition and their application in modern drug design. François Diederich has also been very committed to serving on various Boards of Management at ETH Zurich.

Professor Peter Edwards (*1948), currently Full Professor of Plant Ecology, is to retire at the beginning of August 2017. Peter Edwards was appointed as professor of ETH Zurich in autumn 1993. His research concentrates on ecosystems and large-scale ecological processes. He is working on topics such as biodiversity in agricultural ecosystems and the effect of grazing cattle and horses on vegetation structure. Peter Edwards has made an exceptional contribution to the research community and to ETH Zurich. He has been a member of a number of organisations and bodies, and in 2012 he was awarded the Golden Owl for excellence in teaching. Since autumn 2013 he has been Director of the Singapore-ETH Centre for Global Environmental Sustainability.

Professor Dirk Hebel (*1971), currently Tenure Track Assistant Professor of Architecture and Building Construction, is leaving ETH Zurich at the end of March 2017. Dirk Hebel was appointed to his post in 2011 and has spent most of his time at the Future Cities Laboratory in Singapore. He conducts research into alternative construction materials and technologies and has contributed significantly to the top-class reputation of ETH Zurich's Department of Architecture. He will take up an appointment at another academic institution.

Professor Kevan A.C. Martin (*1952), currently Full Professor of Systems Neurophysiology, is to retire at the beginning of August 2017. Kevan Martin has held a joint professorship of both ETH Zurich and the University of Zurich since 1995 and is Co-Director of the Institute of Neuroinformatics, which is jointly run by both institutions. He is an internationally recognised specialist in neuroinformatics and has made important contributions to this complex area of biology. Kevan Martin's research focused on the tiny connections within the microstructure of the cerebral cortex, among other topics. His work culminated in a synthesis of anatomical, physiological, neurochemical and theoretical investigations and yielded an integrated concept of the way the cerebral cortex functions.

Professor Paul Schönsleben (*1952), currently Full Professor of Industrial Engineering and Management, is to retire at the beginning of August 2017. Paul Schönsleben was appointed to ETH Zurich in 1991. His areas of research and teaching cover logistics, operations and supply chain management, global service management and service innovation. He also works on information management, total quality management (TQM) and process management. He has written a number of textbooks, some of which are still regarded as standard works today. Paul Schönsleben undertook management roles at ETH Zurich over many years and was heavily involved with the founding of the Department of Management, Technology and Economics.

Professor Rainer Schulin (*1952), currently Full Professor of Soil Protection, is to retire at the beginning of August 2017. Rainer Schulin joined ETH Zurich in 1983, and has occupied his current post since October 1998. He developed the teaching of soil protection at ETH Zurich, where he established the new subject as an academic discipline that straddles engineering and natural sciences. Rainer Schulin's research has made important contributions to the recording, analysis, prevention and monitoring of soil contamination by heavy metals and other pollutants. He has also worked on soil compaction and the remediation of contaminated soil.

Departure from EPFL

Professor Benoît Deveaud (*1952), currently Full Professor of Optoelectronics, is to retire at the beginning of April 2017. Benoît Deveaud was appointed to his post in 1993 and founded the Laboratory of Quantum Optoelectronics. During many years of internationally networked and acclaimed research, he and his team assisted with the very first observation of a Bose-Einstein condensate consisting of polaritons. In addition to his research, Benoît Deveaud has been exceptionally committed to the development of EPFL and has made an important contribution to its international reputation. From 2001 to 2013 he was a member of the Academic Evaluation Committee and from 2008 to 2014 he was Dean of Research. He subsequently reorganised the discipline of physics at EPFL and has been Director of the new Institute of Physics since 2016.

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

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