

Appointments by the ETH Board of 26/27 September 2012

22 new professors at the two Federal Institutes of Technology

At its meeting of 26/27 September 2012, the ETH Board appointed 22 professors at ETH Zurich and EPFL in accordance with the applications submitted by the two Presidents of the Swiss Federal Institutes of Technology.

Zurich, 28 September 2012 – Upon application of the President of ETH Zurich, Professor Ralph Eichler, and the President of EPFL, Professor Patrick Aebischer, at its meeting of 26/27 September 2012 the ETH Board appointed a total of 22 individuals as professors, took note of the resignations of six professors and thanked them for their services, and awarded the title of professor to one individual.

1. Appointments

ETH Zurich

Dr Constance Ciaudo (*1979), currently a post-doctoral student at ETH Zurich, as Assistant Professor of RNAi and Genome Integrity. Constance Ciaudo is already a prominent researcher in the field of RNA-based regulatory systems and networks. At ETH Zurich her work will focus on the topics of RNA interference and genome stability. The appointment of Constance Ciaudo will strengthen the position of the Department of Biology as a recognised global leader in the field of the molecular basis of the origins of disease and the development of innovative therapeutic approaches.

Dr Manfred Claassen (*1977), currently a post-doctoral student at Stanford University, California, USA as Assistant Professor of Computational Biology. Manfred Claassen's research focus is systems biology and computational methods with the object of describing cell populations and their functional mechanisms at the molecular level. His interdisciplinary approach combines concepts from the natural and engineering sciences and mathematics. Manfred Claassen's appointment will help to reinforce the international standing of the Department of Biology in the field of systems biology and aspects of computational modelling.

Professor Chiara Daraio (*1978), currently Full Professor at the California Institute of Technology, Pasadena, USA, as Full Professor of Mechanics and Materials. Chiara Daraio is one of the world's foremost specialists in nonlinear wave propagation. The physical understanding of how stress waves propagate in nonlinear, ordered and disordered solid media can be exploited to develop new materials and for engineering applications, for instance in optomechanics and shock absorption. Chiara Daraio has received numerous honours and awards. Her appointment ideally complements other professorships at the Center of Mechanics.

Professor Pietro Gambardella (*1972), currently Professor at the Autonomous University of Barcelona, Spain, as Full Professor of Magnetism and Interface Physics. Pietro Gambardella researches the organisation of atoms and electrons in small-scale structures and seeks to reproduce such mechanisms. His work on one-dimensional atomic chains and nanoparticles has attracted enormous international attention. Pietro Gambardella's appointment brings to the Department of Materials new functional qualities that will reinforce its research focus in material systems.

Professor Christoph Hölscher (*1970), currently Assistant Professor at the University of Freiburg, Germany, as Full Professor of Cognitive Science. Christoph Hölscher has comprehensive interdisciplinary research experience and is internationally networked in the fields of architecture, informatics and geography. His particular interest is spatial orientation and information processing in the real and virtual environments. At ETH Zurich Christoph Hölscher will cooperate closely with researchers in the Departments of Computer Science, Civil, Environmental and Geomatic Engineering, and Architecture.

Professor Marko Köthenbürger (*1970), currently Professor of Economics at the University of Berne, as Full Professor of Public Economics. Marko Köthenbürger is an internationally recognised expert on social security, corporate taxation, tax competition and fiscal federalism. In addition, he has gained in-

depth experience from working at a number of practice-oriented research institutes. With his profile and his know-how on current topics of public finance, Marko Köthenbürger will enhance the standing of the Swiss Economic Institute and the Department of Management, Technology and Economics.

Dr Max Maurer (*1966), currently Head of Department at Eawag, as Full Professor of Urban Water Systems. Max Maurer has made a name for himself as a pioneer in sustainable urban water management. His current field of interest is the engineering potential of innovative approaches to urban water management and innovative management and planning procedures in water infrastructure. With Max Maurer's appointment, the Department of Civil, Environmental and Geomatic Engineering gains a scientist with a reputation as a driving force in inter- and transdisciplinary research in the internationally relevant topic of urban water management.

Professor Nicolai Meinshausen (*1976), currently Professor at the University of Oxford, England, as Full Professor of Statistics. Nicolai Meinshausen is one of the leading statisticians of his generation. The enormous influence of his research in the scientific world finds applications as diverse as the natural sciences and medicine. For example, his interdisciplinary contributions to core questions of climate science and global warming are highly regarded. As Nicolai Meinshausen's honours and awards testify, with his appointment, ETH Zurich gains a creative and original mathematician and statistician whose impact will be felt well beyond the Department of Mathematics.

Professor Renato Renner (*1974), currently Assistant Professor at ETH Zurich, as Associate Professor of Theoretical Physics. Renato Renner is an internationally renowned researcher in the field of quantum information science. His doctoral thesis on quantum cryptography is regarded as one of the major milestones in this field of research. Since his appointment as Assistant Professor, he and his research group have positioned ETH Zurich as an international centre for quantum information. Renato Renner's success in research and teaching underscore his potential as a Professor and leader in his field.

Professor Tapio Schneider (*1972), currently Professor at the California Institute of Technology, Pasadena, USA, as Full Professor of Climate Dynamics. Tapio Schneider is regarded as one of the leading scientists of his generation in climate dynamics. He has published pioneering research papers on the dynamics of the Earth's, Jupiter's, Saturn's, Uranus's and Neptune's atmospheres. The appointment of Tapio Schneider will strengthen the focus of the Department of Earth Sciences in climate research. In cooperation with other departments at ETH Zurich involved in these fields and the institutions in the ETH Domain, he will make a substantial contribution to solving current environmental problems.

Dr Timm Schroeder (*1970), currently Director of the Research Unit Stem Cell Dynamics at the Helmholtz Zentrum München for Environmental Health, Germany, as Full Professor of Cell Systems Dynamics. Timm Schroeder is one of the leading scholars in the relatively new field of experimental systems biology. In recent years, he has succeeded in answering key questions in stem cell research using new computational technologies. His internationally acclaimed results improve our understanding of the molecular and cellular processes in health and disease. Timm Schroeder's appointment reinforces ETH Zurich's strategic research focus on experimental systems biology.

Professor Benjamin Sudakov (*1969), currently Professor at the University of California, Los Angeles, USA, as Full Professor of Mathematics. Benjamin Sudakov's main field of interest is combinatorics, in particular graph and hypergraph theory. The internationally renowned, award-winning mathematician has proven highly influential on a number of occasions by providing elegant solutions for complex combinatorial problems. With the appointment of Benjamin Sudakov, ETH Zurich gains a very creative and communicative scholar who ideally complements the range of subjects offered by the Department of Mathematics and strengthens the ties with the Institute of Theoretical Computer Science.

Dr William R. Taylor (*1972), currently group and project leader at the Julius Wolff Institute of the Charité-Universitätsmedizin Berlin, Germany, as Full Professor of Movement Biomechanics. William Taylor is the originator of various innovative methods for recording skeletal kinematics and detecting pathological movement patterns. His findings facilitate the precise evaluation of patients' disease stages and the early detection of neuromotor diseases. ETH Zurich expects that William Taylor's future biomechanical research will make a substantial contribution to the early identification of patients with neurodegenerative conditions such as Parkinson's disease.

Professor Florian von Wangenheim (*1973), currently Professor at the University of Technology, Munich, Germany, as Full Professor of Technology Marketing. Florian von Wangenheim has established a reputation in the field of technology marketing through his use of methodologically and statistically sophisticated processes. These include, for example, stochastic models for investigating buying behaviour. Florian von Wangenheim's appointment strengthens the ability of the Department of Management, Technology and Economics to promote innovation processes, successfully market technical solutions and expand its international network of scientific and industrial contacts.

EPFL

Professor Christina Fragouli (*1972), currently Tenure Track Assistant Professor at EPFL, as Associate Professor of Computer and Communication Sciences. Christina Fragouli is an internationally recognised specialist in communication networks. One of her key topics is network organisation and coding to optimise the throughput of data and information. Her results have facilitated the development of new approaches to improving transmission quality and security in the Internet, in sensor networks and in wireless communication systems. The appointment of Christina Fragouli will enable EPFL to bolster its international strengths in information theory and computer sciences.

Professor Viktor Kuncak (*1977), currently Tenure Track Assistant Professor at EPFL, as Associate Professor of Computer and Communication Sciences. At EPFL, Victor Kuncak leads the research group LARA (Lab for Automated Reasoning and Analysis). With his group he develops algorithms and software tools for constructing reliable systems. His research results in the field of programming languages, automated software engineering and implicit programming have attracted a lot of attention. An expression of his creativity is a impressive list of publications in highly regarded journals that is exceptionally impressive for a person of his age.

Professor Daniel Kressner (*1978), currently Tenure Track Assistant Professor at EPFL, as Associate Professor of Mathematics. In recent years, Daniel Kressner has made crucial progress in the field of digital linear analysis. Algorithms developed by him have produced solutions for various mathematical problems that previously had impaired computer performance. By appointing Daniel Kressner, EPFL is securing important know-how for the further expansion of its strong international position in the computer sciences.

Professor Hatice Altug (*1978), currently Tenure Track Assistant Professor at the University of Boston, USA, as Associate Professor of Bioengineering. Hatice Altug already enjoys an international reputation as an expert for biosensing systems. Her developments in recent years include, among others, plasmonic and nanoplasmonic sensors that are able to detect viruses via optical effects. Her impressive list of research results has shifted the boundaries of research in the field of biosensors. Hatice Altug will continue and expand her trail-blazing research at EPFL.

Dr Simon Henein (*1973), currently Senior Expert at the Centre Suisse d'Electronique et de Microtechnique (CSEM) in Neuchâtel, as Associate Professor of Microtechnics. Simon Henein is an acknowledged specialist in theoretical and practical microtechnics and mechatronics. His particular field of expertise is flexible guideways that can be used as bearings in microtechnical applications. Simon Henein has spent most of his career at the CSEM, interrupted by periods at the PSI and the Bern University of Applied Sciences. His proven strengths in research, teaching and practice make him a welcome addition to the EPFL staff.

Dr Jürg Schiffmann (*1974), currently a project leader in the private sector, as Tenure Track Assistant Professor of Mechanics. After completing his studies at EPFL, Jürg Schiffmann's career took him to a number of universities and private-sector companies. For his doctoral thesis he drew on studies made by a private company on a small-scale turbocompressor for heat pumps. Further stages in his academic career were the Industrial Energy Systems Laboratory at EPFL and a post-doctorate at the Massachusetts Institute of Technology, Cambridge, USA. With his experience in applied research, Jürg Schiffmann is a great enhancement for EPFL.

Dr Tobias Schneider (*1979), currently group leader at the Max Planck Institute in Göttingen, Germany, as Tenure Track Assistant Professor of Mechanics. Through his studies on the flow behaviour of fluids in

pipes Tobias Schneider has already made a name for himself worldwide. His results have provided some of the most important insights in the last ten years in the field of fluid mechanics. Tobias Schneider has the ability to delve into a special field without losing sight of the overall picture. This enables him to actively participate in transdisciplinary projects, for example on the development of photovoltaic cells.

Professor Helena Van Swygenhoven (*1955), currently Adjunct Professor at EPFL, as Full Professor of Materials Science. Helena Van Swygenhoven is an internationally renowned, extremely productive materials scientist. She leads a research group at the PSI and at the same time teaches at EPFL. One of her specialist areas is the optimisation of highly stressed metallic materials. To retain her scientific expertise within Switzerland and strengthen the cooperation between EPFL and PSI, Helena Van Swygenhoven has been awarded a 20-percent position as a Full Professor.

2. Retirement/departure

ETH Zurich

Professor Silvia Dorn (*1947), currently Full Professor of Applied Entomology, will retire with effect from 31 January 2013. Silvia Dorn studied at and obtained her doctorate in natural science from ETH Zurich. Subsequently she pursued her post-doctoral studies in the USA and worked for several years in the industrial sector. In 1992 she was appointed as a Full Professor at ETH Zurich, since when she has done research on plant-insect relationships, in particular to foster sustainable management of agricultural ecosystems. She was Head of the Institute of Plant Sciences for several terms of office and from 2002 to 2004 headed the Department of Agricultural and Food Sciences.

Professor Hauke Hennecke (*1947), currently Full Professor of Microbiology, will retire with effect from 31 January 2013. Hauke Hennecke was appointed at ETH Zurich in 1983, initially as Associate Professor and in 1985 as Full Professor. He is an internationally recognised authority on the topic of symbiotic nitrogen fixation, for which he has received various prestigious research awards. For many years he served as chairperson and deputy chairperson of the Department of Biology and the Institute of Microbiology. From 1998 to 2002 he chaired the Research Committee of ETH Zurich.

Professor Dieter Imboden (*1943), currently Full Professor of Environmental Physics, will retire with effect from 31 December 2012. Dieter Imboden is an internationally recognised expert on environmental, climate and energy questions. After receiving his doctorate from ETH Zurich, he worked at Eawag and at the University of California, San Diego, USA, before being appointed as Full Professor at ETH Zurich in 1988. The milestones in his career include the inception of the course in environmental sciences, the project "Novatlantis – Sustainability at the ETH Domain", and the pilot project "2000 Watt Society". Dieter Imboden was elected President of the Research Council of the Swiss National Science Foundation (SNSF) by the Executive Committee of the SNSF's Foundation Council with effect from 1 January 2005.

Professor Hilmar Ingensand (*1947), currently Full Professor of Geodetic Metrology and Engineering Geodesy, will retire with effect from 31 January 2013. After an academic career at the University of Bonn, Germany and a period working in the private sector, Hilmar Ingensand was appointed at ETH Zurich in 1993. His research foci at ETH Zurich include geodetic metrology, sensor technology and engineering geodesy. At ETH Zurich Hilmar Ingensand has occupied leading positions in his department and his institute. In addition to this, he has been active in numerous Swiss and international expert and technical committees and scientific organisations.

Professor Wilfred F. van Gunsteren (*1947), currently Full Professor of Computer Aided Chemistry, will retire with effect from 31 January 2013. Wilfred van Gunsteren started his career teaching at universities in the Netherlands and the USA. He was appointed Full Professor at ETH Zurich in 1990. His research interest is the development of methodologies to simulate the behaviour of biomolecular systems and their realisation in computer programs. He is regarded as one of the global leaders in these fields and in their practical application. Over and above research and teaching, Wilfred van Gunsteren has assiduously represented the interests of ETH Zurich in numerous institutions and committees.

EPFL

Professor Reymond Clavel (*1950), currently Full Professor of Microtechnics will retire with effect from 31 January 2013. Reymond Clavel started working at EPFL in 1981 and was appointed Full Professor and Director of the Laboratory of Robotics Systems in 1993. His research interest is the development and realisation of robots for industrial applications. He has also guided a number of start-up companies to commercial success. His range of international awards and honours bears testimony to his dedication to microtechnical research and applied robotics. Reymond Clavel used his numerous positions of responsibility at EPFL to actively promote research and teaching.

The ETH Board would like to thank the departing professors for their services to science and teaching, as well as their commitment to their institution.

3. Award of the title of Professor**ETH Zurich**

Dr Alexander von Kienlin, Lecturer in the Department of Architecture at ETH Zurich, as Adjunct Professor at ETH Zurich.

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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 ETH Board is appointed by the Swiss Federal Council. The ETH Board supervises the development plans, is responsible for management accounting, and ensures coordination. It draws up the budget and the financial statement 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. The ETH Board is supported by a Staff Department, which prepares and implements its decisions.