

PROGRAM OF THE SWISS NANOCONVENTION 2021 ONLINE

Time	Thursday, 24 June		
9:00 am - 9:15 am	Opening Session Welcome words from Swiss Nanoscience Institute, Swiss MNT, University of Basel and Platinum Sponsors		
9:15 am - 10:45 am	Keynote Chairs: Prof. Dr. Cornelia Palivan and Prof. Dr. Philipp Treutlein <i>From Simple Discrete Metal-Ligand Motifs to Supramolecular Assembly, Nanostructures and Functions</i> Prof. Dr. Vivian Yam. University of Hong Kong, Hong Kong <i>Towards a Quantum Network</i> Prof. Dr. Harald Weinfurter. LMU, Munich		
10:45 am - 10:55 am	Round Table Prof Dr. Yam & Prof. Dr. Weinfurter		
10:55 am - 11:00 am	Break, Exhibition Videos		
11:00 am - 11:10 am	Mingling		
11:10 am - 12:10 pm	S1: Nano for Quantum Computing Chair: Prof. Dr. Dominik Zumbühl <i>Andreev vs. Majorana Bound States</i> Prof. Dr. Jelena Klinovaja. University of Basel, Basel <i>Procedural generation using quantum computation</i> Dr. James Wootton. IBM, Zurich <i>Moving qubits from lab to fab: enabling qubit arrays</i> Dr. Iuliana Radu. Interuniversity Microelectronics Centre, Belgium	S2: Nano for Healthy Aging Chair: Prof. Dr. Daniel Müller <i>Assembly diversity of the neuronal Tau protein in health and disease</i> Dr. Susanne Wegmann. DZNE, Berlin <i>Cryo-EM studies of alpha-synuclein fibril strains and of Lewy bodies in human brain</i> Prof. Dr. Henning Stahlberg. EPFL, Lausanne <i>Charting human development with multi-organ single-cell genomic atlases and organoid technologies</i> Prof. Dr. Grayson Camp. University of Basel, Basel	AS1: Nano Innovations Chair: Dr. Marcus Morstein <i>NanoCoat: a nanostructured and chemically modified implant surface for accelerated osseointegration</i> Dr. Simon Berner. Medicoat, Mägenwil <i>The nanocrystallography revolution: A dedicated device for 3D-Electron Diffraction experiments on nanocrystals</i> Dr. Gustavo Santiso-Quinones. Eldico Scientific, Villigen <i>DynamicMold: Micro-nanotechnology-based creation of individual watermarks on every single plastic device</i> Dr. André Bernard. matriqi AG, St.Gallen
12:10 pm - 12:20 pm	Round Table S1	Round Table S2	Round Table AS1
12:20 pm - 12:50 pm	Poster Flash		
12:50 pm - 1:00 pm	Exhibition Flash		
1:00 pm - 1:30 pm	Lunchbreak		
1:30 pm - 2:20 pm	Exhibition, Posters, Networking		
2:20 pm - 2:30 pm	Mingling		
2:30 pm - 3:30 pm	S3: Nanoengineered Inorganic Materials Chair: Dr. Pierangelo Gröning <i>Colloidal quantum dots for infrared detection beyond silicon</i> Prof. Dr. Philippe Guyot-Sionnest. James Franck Institute, The University of Chicago, USA <i>3D Printing of Hierarchical Porous Materials</i> Prof. Dr. André Studart. ETHZ, Zurich <i>Interface Engineering for Nano- and Micro-Joining Technologies</i> Dr. Lars Jeurgens. EMPA, Dübendorf	S4: Nanoengineered Organic Materials Chair: Prof. Dr. Tom Ward <i>Bio-inspired strategies across multiple scales for CO₂ reduction</i> Prof. Dr. Victor Mougel. ETHZ, Zurich <i>Metal-Binding Peptoids as a New Platform for the Development of Functional Bio-Inspired Materials and Supramolecular Peptoid Architectures</i> Prof. Dr. Galia Maayan. Technion, Haifa <i>New Supramolecular Materials</i> Prof. Dr. Javier Montenegro. University of Santiago de Compostela, Santiago de Compostela	AS2: Nanoanalytics and Imaging for Quality Products Chair: Dr. Christian Grünzweig <i>Non-destructive 3D imaging on the nanoscale at the Swiss Light Source</i> Dr. Ana Diaz. PSI, Villigen <i>Neutron imaging applied to ZnO ceramic green bodies with organic binder</i> Michael Hagemeister. Hitachi ABB Power Grids, Wettingen <i>Harnessing the synchrotron radiation technology to meet the needs of the pharma industry</i> Dr. Fabia Gozzo. Excelsus Structural Solutions AG, Villigen
3:30 pm - 3:40 pm	Round Table S3	Round Table S4	Round Table AS2
3:40 pm - 4:00 pm	Exhibition and Job Fair		
4:00 pm - 5:30 pm	Keynote Chairs: Prof. Dr. Daniel Müller and Prof. Dr. Konrad Tiefenbacher <i>Adventures in DNA replication using single-molecule biophysics</i> Prof. Dr. Nynke Dekker. TU Delft, Delft <i>Making the Tiniest Machines</i> Prof. Dr. David Leigh. University of Manchester, Manchester		
5:30 pm - 5:40 pm	Round Table Prof. Dr. Dekker & Prof. Dr. Leigh		
5:30 pm - 6:40 pm	Job Fair		

Time	Friday, 25 June		
8:30 am - 10:00 am	<p>Keynote Chairs: Prof. Dr. Henning Stahlberg and Prof. Dr. Jelena Klinovaja</p> <p>How does the architecture of cellular membranes support membrane functions? Prof. Dr. Wanda Kukulski. University of Bern, Bern</p> <p>Quantum Computation – Spins Inside Prof. Dr. Lieven Vandersypen, TU Delft, Delft</p>		
10:00 am - 10:10 am	Round Table Prof. Dr. Kukulski & Prof. Dr. Vandersypen		
10:10 am - 10:15 am	Break, Exhibition Videos		
10:15 am - 10:20 am	Group Picture		
10:20 am - 10:30 am	Mingling		
10:30 am - 11:30 am	<p>S5: Nano for Photonics and Quantum Communication Chair: Prof. Dr. Richard Warburton</p> <p>Single-photon quantum hardware: towards scalable photonic quantum technology with a quantum advantage Prof. Dr. Peter Lodahl. Niels Bohr Institute, Copenhagen</p> <p>Nonlinear optics at the single emitter and single-photon level Prof. Dr. Stephan Götzinger. MPL, Erlangen</p> <p>Quantum Key Distribution and Quantum Random Number Generation with Photonic Integrated Circuits Prof. Dr. Hugo Zbinden. University of Geneva, Geneva</p>	<p>S6: Nanotechnology for Antimicrobial Resistance AMR Chair: Prof. Dr. em. Christoph Gerber</p> <p>Nanomotion based antibiotic sensitivity test Dr. Sandor Kasas. EPFL Lausanne and University Center of Legal Medicine (IML), Unité facultaire d'anatomie et de morphologie (UFAM)</p> <p>Harnessing nanotechnology and deep learning for the early detection of infectious diseases and antimicrobial resistance Prof. Dr. Rachel McKendry. London Center for Nanotechnology, London</p> <p>A cantilever nanosensor-based diagnostic assay to rapidly detect low concentrations of antibiotic resistance genes Prof. Dr. Dr. Adrian Egli. University Hospital of Basel, Basel</p>	<p>AS3: Advanced Manufacturing at the Nanoscale Chair: Dr. Christian Bosshard</p> <p>Additive micromanufacturing (μAM) of metal microstructures with submicrometer resolution Edgar Hepp. Exaddon, Glattbrugg</p> <p>Thermal Scanning Probe Lithography Using the NanoFrazor Dr. Emine Çağın. Heidelberg Instruments Nano, Zurich</p> <p>From 3D printing to coating: making functional biopolymers Dr. Marianne Wink. FHNW, Windisch</p>
11:30 am - 11:40 am	Round Table S5	Round Table S6	Round Table AS3
11:40 am - 12:10 pm	Poster Flash		
12:10 pm - 12:20 pm	Exhibition Flash		
12:20 pm - 12:50 pm	Lunchbreak		
12:50 pm - 1:50 pm	Exhibition, Posters, Networking		
1:50 pm - 2:00 pm	Mingling		
2:00 pm - 2:45 pm	<p>Güntherodt Lecture Chairs: Prof. Dr. Christian Schönenberger and Prof. Dr. Harald Brune</p> <p>Quantum Spins on Surfaces: The Scanning Probe Approach Prof. Dr. Andreas Heinrich. Center for Quantum Nanoscience, Seoul</p>		
2:45 pm - 2:55 pm	Round Table Prof. Dr. Heinrich		
2:55 pm - 3:55 pm	<p>S7: Nano for Climate Chairs: Prof. Dr. Ernst Meyer and PD Thilo Glatzel</p> <p>Electrochemical Energy Storage in Batteries: Can “Nano” Help? Prof. Dr. Petr Novák. TU Braunschweig, Braunschweig</p> <p>Improving the efficiency of solar cells applying nanotechnologies: Overview with a focus on thin film technologies Prof. Dr. Michael Powalla. ZSW, Stuttgart</p> <p>Flexible lightweight thin film solar cells based on CIGS and Perovskites Prof. Dr. Dr. Ayodhya Tiwari. EMPA, Dübendorf</p>	<p>S8: Nanotechnologies for Health Chair: Prof. Dr. Jörg Huwlyer</p> <p>Implementation of new nanotechnologies into clinical care: Are we ready for take-off? Prof. Dr. Beatrice Beck-Schimmer. University of Zurich, Zurich</p> <p>Materials Innovation for Healthcare Prof. Dr. Inge Herrmann. ETHZ, Zurich</p> <p>Mechanosensitive Liposomes: Translating the Academic Idea into a Clinical Product Dr. Andreas Zumbühl. Acthera Therapeutics, Basel</p>	<p>AS4: Nanotechnology Startup Contest Chair: Dr. Pierangelo Gröning</p> <p>Short pitches of preselected startups that submitted their applications beforehand. Vote by audience via web.</p>
3:55 pm - 4:05 pm	Round Table S7	Round Table S8	Round Table AS4
3:55 pm - 4:15 pm	Exhibition		
4:15 pm - 5:45 pm	<p>Keynote Chairs: Prof. Dr. Roderick Lim and Dr. Yasin Ekinici</p> <p>NanoEngineering gone #viral Prof. Dr. Nicole Steinmetz. University of California, San Diego</p> <p>Optical Lithography, the key enabler for Moore’s Law Dr. Frank Schuurmans. ASML, Veldhoven</p>		
5:45 pm - 5:55 pm	Round Table Prof. Dr. Steinmetz & Dr. Schuurmans		
5:55 pm - 6:30 pm	<p>Swiss MNT Awards and Closing Session Chairs: Prof. Dr. Christian Schönenberger, Dr. Pierangelo Gröning and Prof. Dr. Barbara Rothen-Rutishauser</p>		
6:30 pm - 7:30 pm	Job Fair		