

Date: Tuesday, 16/Nov/2021, (all times EET / UTC +2 / Finnish time)

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| 12:00pm | 12:00 | Welcome Conference chair, Professor Jussi Hiltunen, VTT Technical Research Centre of Finland |
| 12:15pm | 12:15 | Plenary presentation, Day 1: Dr. Rolando Ferrini, CSEM, A New Era for Free-Form Micro-Optics Manufacturing, Dr. Rolando Ferrini, CSEM, Switzerland |
| 12:45pm | | Printing towards nanoscale features 1, chair: Jaakko Leppäniemi |
| | 12:45 | Keynote presentation: Large-area nanostructured electronics manufactured at a flash, Prof. Thomas Anthopolous, KAUST, Saudi Arabia |
| | 13:10 | Invited presentation: High-resolution printing of semi-solidified inks: process mechanisms and device applications, Dr. Yasuyuki Kusaka, AIST, Japan |
| | 13:30 | Area Selective Deposition of Aluminum Oxide via Metallized UV-nanoimprinted Resin Patterns, Chiaki Miyajima, Tohoku University, Japan |
| 1:45pm | | Applications 1, chair: Olli-Heikki Huttunen |
| | 13:45 | Invited presentation: Towards high-throughput organ-on-chips for blood-brain barrier modelling, Prateek Singh, CEO Finnadvance, Finland |
| | 14:05 | Invited presentation: Novel Origami Foil Based Microfluidic Chip For DNA Amplification And Multiplex Detection Fabricated By High-throughput R2R UV NIL, Anne Linhardt, Joanneum Research, Austria |
| | 14:25 | Tailor-made Glass Substrates For Augmented Reality And Flat Optics: Relevance Of Material Properties, Wafer Topology and Mechanical Robustness, Matthias Jotz, SCHOTT AG, Germany |
| 2:45pm | | Advancement in imprinting 1, chair: Tapio Mäkelä |
| | 14:45 | Keynote presentation: Nanoimprinted diffractive- and meta-optics in consumer electronics, Dr. Theodor Nielsen, NILT, Denmark |
| | 15:10 | High Refractive Index Nanoimprint Resins for Optical Elements, Mikko Poutanen, Inkron Oy, Finland |
| | 15:30 | Simulating the Layer Thickness in Roller-based Imprinting with Pre-tensioned Flexible Stamps, Jelle Snieder, Delft University of Technology, Netherlands |
| 3:50pm | | Break, Day1 |
| 4:15pm | | Advancement in imprinting 2, chair: Anja Haase |
| | 16:15 | Advanced Materials for Nanoimprint Lithography, Stephan Prinz, DELO Industrial Adhesives, Germany |
| | 16:35 | Efficient and Application-optimized Manufacturing of Nanostructures with High Aspect Ratios Using Soft UV-Nanoimprint Lithography with Bi- and Tri-layer Resist Systems, Thomas Handte, University Ilmenau/5microns GmbH, Germany |
| | 16:55 | Advances in Manufacturing of Slanted Gratings with High Refractive Index Using Nanoimprint Lithography, Martin Eibelhuber, EV Group, Austria |
| 5:15pm | | Advancement in imprinting 3, chair: Helmut Schiff |
| | 17:15 | A Scalable Manufacturing Approach For All-Inorganic Diffractive Optics, Lightguide Gratings And Metalenses Using Nanoimprint Lithography And High Refractive Index Nanoparticle Inks, Prof. James J. Watkins, University of Massachusetts, United States of America |
| | 17:35 | Solvent-free Purely Organic UV-NIL Material For Inkjet Dispensing With Increased Refractive Index, Mirko Lohse, micro resist technology GmbH, Germany |
| | 17:55 | NIL Compatible Ultra-High Refractive Index Resins for Patterning Diffractive Optical Elements, Dr. Keiko Munechika (HighRI Optics, Inc, United States of America |
| 6:15pm | | Emerging technology in industry 1, chair: James Watkins |
| | 18:15 | Keynote presentation: Nanoimprint Lithography: A Historical Perspective and a Look Towards the Future, Dr. Doug Resnick, VP, Canon Nanotechnologies Inc., United States of America |
| | 18:40 | Invited presentation: Dispelix – A Journey from Innovation to Volume Manufacturing, Ismo Vartiainen, VP R&D, Dispelix, Finland |
| | 19:00 | NIL Enabled Full 200mm Wafer Production Release of 25nm Wide Lines Enhancing Performance of Wire Grid Polarizers, Bradley R. Williams, Moxtek, United states of America |

Date: Wednesday, 17/Nov/2021 (all times EET / UTC +2 / Finnish time)

- 9:00am** **Plenary presentation, Day 2: Prof. Takao Someya, Univ. Tokio**
- Next Generation Skin Sensors, Prof. Takao Someya, Univ. Tokio, Japan
- 9:30am** **Advancement in imprinting 4, chair: Samuli Siitonen**
- 9:30 **Invited presentation:** Fabrication process and application of moth-eye structure film, prof. Jun Taniguchi, Tokyo university of science, Japan
- 9:50 A New Optical Profiler Gyockt Eye™ Targeting To Evaluation And Inspection Of Nanoimprinted Lenses For 3D Sensing System, Tomonori Nakamura, SCIVAX corporation, Japan
- 10:10 Smart Process Design Using Deep Learning For Thermal Nanoimprint, prof. Yoshihiko Hirai, Osaka Prefecture University, Japan
- 10:30am** **Advancement in imprinting 5, chair: Jun Taniguchi**
- 10:30 UV Nanoimprint Lithography Involving Laser-Drilled Screen Printing, prof. Masaru Nakagawa, Tohoku University, Japan
- 10:50 Fabrication of Two-Layer Freestanding Through Hole Electrode Films by Transfer Method, Atsuhiko Furuta, Tokyo University of science, Japan
- 11:10 Study on Filling Process of Molecular Weight Dispersive Resin for Ultra fine Cavity, Yoshihiko Hirai, Osaka Prefecture University, Japan
- 11:30am** **Applications 2, chair: Yoshihiko Hirai**
- 11:30 **Keynote presentation:** Printing technologies using soft silicone blanket for conformal electronic-device fabrication, Dr. Ken-ichi Nomura, AIST, Japan
- 11:55 Full Ecosystem for the Production of Diffractive Binary Fresnel Lenses by Nano-Imprint Lithography, Rongchen Qin, imec, Sensor & Actuator Technologies (SAT), Belgium
- 12:15 Facile Fabrication of Rose-petal-effect Film Using Moth-eye Structure, Jun Taniguchi, Tokyo University of Science, Japan
- 12:35pm** **Break, Day2**
- 1:00pm** **Applications 3, chair: Lars Montelius**
- 13:00 **Tutorial presentation:** Organ-on-Chip in Europe: the way forward, Janny van den Eijnden-van Raaij, hDMT, Netherlands
- 13:25 Nanoimprint As A Large-Area Nanofabrication Technique For Nanostructured Point Contacts In Ultrathin Solar Cells, Tomás Sousa Lopes, INL- International Iberian Nanotechnology laboratory, Portugal
- 13:45 From Electron Beam Lithography to UV-Nanoimprint Metasurface Lens Fabrication for NIR Domain, Dr. Oana Rasoga, National Institute of Materials Physics, Romania
- 2:00pm** **Emerging technology in industry 2, chair: Olli-Heikki Huttunen**
- 14:00 **Invited presentation:** Path from Lab to Fab for Thermal Roll to Roll Nano- and Microimprinting, Dr. Raimo Korhonen, Iscent, Finland
- 14:20 Machine Concepts For The Future Of UV And Thermal Nanoimprint Lithography, Thomas Exlager, Coatema Coating Machinery GmbH, Germany
- 14:40 Roll-to-Plate Nanoimprinting for High-Volume Manufacturing of AR glasses, Pim Veldhuizen, Morphotonics, Netherlands
- 3:00pm** **Advancement in imprinting 6, chair: Anja Haase**
- 15:00 Spin-On Thin-Film COC Formulation For Permanent High Temperature Applications And T-NIL Processes, Manuel Thesen, micro resist technology GmbH, Germany
- 15:20 PDMS microstructure replication by Roll-to-Roll imprinting in reduced atmospheric pressure, Olli-Heikki Huttunen, VTT Technical Research Centre of Finland, Finland
- 15:40 How to Keep a Good Skin Without Peeling: Bonding of a Roll-to-roll Extrusion Coated Film on a Back Injection Molded Polymer Body, Helmut Schiff, Paul Scherrer Institut (PSI), Switzerland
- 16:00 Programmable Inkjet Deposition of Resin for Nanoimprint Lithography Applications, Asmae Dahrabou, Stensborg A/S, Denmark
- 4:20pm** **Printing towards nanoscale features 2, chair: Tapio Mäkelä**
- 16:20 **Invited presentation:** Micro-Transfer-Printing Technology For Implementing Scalable III-V-on-Si Heterogeneous Integration, Dr. ir Grigorij Muliuk, Ghent University - IMEC, Belgium
- 16:40 Towards sub- μm patterning of metals using reverse-offset-printed resist layers, Dr. Jaakko Leppäniemi, VTT Technical Research Centre of Finland, Finland
- 5:00pm - 5:20pm** **Closing words**
- 17:00 Farewell and towards NNT 2022, Helmut Schiff, Yoshihiko Hirai