SIC: Precision Motion Systems & Control
Brabanthallen's-Hertogenbosch, The Netherlands, NL
17th - 18th November 2026

Tuesday 17th November 2026

Time (CET)	Programme
08:15 - 09:00	**Registration**
09:00 - 09:10	**Welcome Address** by **Dick Laro, MI-Partners, NL** on behalf of eu**spen**
09:10 - 09:40	**Keynote 1: Controls co-design for the Einstein Telescope: Combining fast mechanical simulations with robust optimisers** *Dr Conor Mow-Lowry, Vrije Universiteit Amsterdam and Nikhef*
Chair: Dick Laro	**Session 1: Vibration isolation and robotic systems**
09:40 - 10:00	**SK1.01 Design & control of a Hybrid robot for 3D inspection** *Salomé Provost-Mattmann, Université Bourgogne Europe, FR (PMC26117)*
10:00 - 10:15	**S1.02 Performance-Oriented Active Vibration Control of Ultra-Hard Piezoelectric Mounts** *Aditya Natu, Delft University of Technology, NL (*PMC26102)
10:15 - 10:30	**S1.03 Precision Pointing Control of a 2-DOF SRM-Based Coarse Pointing Assembly** *Emre Deniz, TNO, NL (PMSC26135)*
10:30 - 10:45	**S1.04 Quantum measurement of torsional motion for gravity experiments** *Vivishek Sudhir, Massachusetts Institute of Technology, US (PMSC26132)*
10:45 - 11:05	**Discussion**
11:05 - 11:30	**Coffee & Networking**
11:30 - 12:00	**Keynote 2: Active vibration control in large scale machine tools** *Dr. Oier Franco, IDEKO, ES*
Chair: Markus Hauf	**Session 2: High dynamic positioning systems**
12:00 - 12:20	**SK2.01 Electrostatic Shear Clamp Concept for EUV Photolithography Stages** *Byron Seaberg, Massachusetts Institute of Technology, US (PMSC26130)*
12:20 - 12:35	**S2.02 Dynamic Error Budgeting-Based Optimization of Narrow-Band Multimode Active Vibration Control for an Industrial Wafer Gripper** *Aditya Natu, Delft University of Technology, NL (PMSC26106)*
12:35 - 12:50	**S2.03 A novel constrained layer damping concept for improved system dynamic performance** *Wietse Maas, ASML, Netherlands (PMSC26138)*
12:50 - 13:05	**S2.04 Development of a Passive Hydraulic Capsule for Mechanical Assistance in Scanning Photolithography Stages** *Byron Seaberg, Massachusetts Institute of Technology, US (PMSC26131)*

V5
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13:05 - 13:25	**Discussion**
13:25 - 14:25	**Lunch, Networking & Poster Viewing**
Chair: Jens Flugge	**Session 3: Multi-axis positioning systems (part 1)**
14:25 - 14:45	**SK3.01 Magnetically Levitated Planar Motor with Nanometer Precision** *Bert Kuijpers, Eindhoven University of Technology, NL (PMSC26118)*
14:45 - 15:00	**S3.02 Hybrid Three-Degree-of-Freedom Positioning System Using Ultrasonic and Electromagnetic Actuators** *Chenglong Ding, IFW Leibniz Universität Hannover, DE (PMC26104)*
15:00 - 15:15	**S3.03 Optical detection of registration marks with a laser focus sensor and the NPS6D200 nanopositioning system** *Steffen Hesse, IMMS GmbH, DE (PMSC26113)*
15:15 - 15:40	**Commercial session** Andersen Electronic Design Ltd, ASML, SmarAct Metrology, TNO, Zeiss SMT
15:40 - 15:55	**Discussion**
15:55 - 17:00	**Coffee & Networking & Poster session**
	Poster pitch session (quick fire presentations next to your poster) **P1.01** Competency Profiling and Production Planning Mechanism of Robotic Machining Incorporating CAD Integrated Cloud Manufacturing for Digital Twin; *Abdullah All Mamun Anik, University of Huddersfield, UK (PMSC26101)* **P1.02** Force-Regulated Biaxial Loading for Quantitative Characterization of Vision-Based Tactile Sensors; *Geming Chen, Jiangnan University, CN (PMSC26103)* **P1.03** A Free-Decay Oscillation Method for Hysteresis Characterisation in Precision Flexure Mechanisms; *Diederik van Inzen, Fontys university of applied sciences, NL (PMSC26105)* **P1.04** System Identification for Precision Mechatronic Systems; *Kai Karvinen, DE (PMSC26109)* **P1.05** Displacement Measurement and Anisotropy Investigations of Mineral Cast as a Base for Nanopositioning Systems; *Ina Naujokat, IMMS GmbH, DE (PMSC26114* **P1.06** Fusion of high precision planar Nanopositioning and tip-based Nanometrology; *Jaqueline Stauffenberg, Technische Universität Ilmenau, DE (PMSC26116)* **P1.07** On the Influence of Flexible Modes on Rigid-Body Control: A Metric for Sensor–Actuator Configurations; *Tobias Thoma, Carl Zeiss SMT GmbH, DE (PMSC26119)* **P1.08** Active Refractive Index Control for High-Precision Metrology; *Sebastian Siebenhaar Technische Universität Ilmenau, DE (PMSC26124)*

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Chair: Jens Flugge	**Session 3: Multi-axis positioning systems (part 2)**
17:00 - 17:15	**S3.05 Metrological characterization of a millimeter-range planar MagLev stage with sub-nanometer resolution for high-speed large-area atomic force microscopy** *Rudolf Krüger, Physik Instrumente (PI) GmbH & Co. KG, DE (PMSC26123)*
17:15 - 17:30	**S3.06 Design and Analysis of the 5-phase Planar Motor** *Evan Andersen, Andersen Electronic Design Ltd, CN (PMSC26126)*
17:30 - 17:45	**S3.07 Inverted Interferometric Stage Metrology for Large-Area Lithography Using Range-Resolved Interferometry** *Matthias Krojer, TU Ilmenau, DE (PMSC26127)*
17:45 - 18:00	**S3.08 Data-driven compensation of position-dependent disturbances: applied to a 6-DOF sample positioning stage** *Luuk van Sundert, Technical University of Eindhoven, NL (PMSC26129)*
18:00 - 18:20	**Discussion**
18:25 - 18:50	**Walk to Three Amigos restaurant (20 minute walk)**
19:00 - 21:00	**Networking Dinner**

Wednesday 18th November 2026

Time (CET)	**Programme**
08:30 - 09:00	**Keynote 3:** *Prof. Hans Vermuelen, ASML & TU/e, NL*
Chair: Jose Yague Fabra	**Session 4: Mechatronic system architecture and designs**
09:00 - 09:20	**SK4.01 Precision Design and Control in Microphysiological Systems (Organs on Chips)** *David Trumper, MIT, US (PMC26136)*
09:20 - 09:35	**S4.02 Structure-preserving model reduction of modular high-precision systems** *Luuk Poort, MI-Partners, NL (PMC26121)*
09:35 - 09:50	**S4.03 Online Identification of Hysteresis Models for Condition Monitoring of Piezoelectric Actuators** *Tobias Herkner, Physik Instrumente (PI) SE & Co. KG, DE (PMC26107)*
09:50 - 10:05	**S4.04 Robust Control of Mechatronic Systems: A practical approach using the Nichols Plot and interpreting the Nyquist Criterion** *Lukas Konietzny, Carl Zeiss SMT GmbH, DE (PMC26108)*
10:05 - 10:20	**S4.05 Design and Validation of a Hybrid Tunable Magnet Actuator for Gravity Compensation in a 6-DoF Levitated Stage** *Nikai Verzijl, TU Delft, NL (PMC26111)*
10:20 - 10:35	**S4.06 Single-Phase Linear Motor-Driven Split Stage Architecture for High-Acceleration Photolithography Reticle Scanning** *Yoonsik Kwon, MIT, US (PMC26133)*
10:35 - 10:50	**Discussion**

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10:50 - 11:40	**Coffee & Poster session**
Chair: Sian Moxom	**Poster pitch session (quick fire presentations next to your poster)** **P1.09** Adaptive Control of Parallel Link Type Robot Machine Tool by Observing Cutting forces; *Yoshitaka Morimoto, Kanazawa Institute of Technology, JP (PMS26125)* **P1.10** Design and analysis of a piezoelectric Z/tip/tilt manipulator with millimeter-level motion; *Guangbo Hao, University College Cork, IRE (PMSC26128)* **P1.11** Modular voice-coil reaction force compensation for a pneumatically isolated long-stroke XY stage; *Hyo-Young Kim, Tech University of Korea (TU Korea) KR (PMSC26137)* **P1.12** Predicting spillover from modal residues in active vibration isolation; Lukas Maicher, *Carl Zeiss SMT, DE (PMSC26139)* **P1.13** Set-and-Forget Shape Control of a Deformable Mirror Using Hysteretic PNZT Actuators; *Jurrien Keulen, University of Groningen, NL (PMSC26140)* **P1.14** Embodied Input Shaping for Ripple Suppression in Pneumatic PWM-actuated High-Speed Valves; *Edisa Shoshi , Eindhoven University of Technology, NL (PMSC26141)* **P1.15** Preliminary Study on the Use of Flexure Mechanisms for High-Precision, Vibrationally Stable Alignment and supporting of Accelerator Components in the FCC; *Michel Noir , CERN, CH (PMSC26142)* **P1.16** ML-supported online inspection of laser-welded fasteners by laser-induced acoustic emission analysis using a precision beam-steering and synchronisation platform; *Nicolas Kayser , Fraunhofer IPK Berlin, DE (PMSC26143)* **P1.17** Motion and metrology architectures for a BSL4-compatible cryogenic soft X-ray tomography stage at Sirius Light Source; *Renan Geraldes , Brazilian Center for Research in Energy and Materials, BR - CNPEM (PMSC26144)* **P1.18** Sensing machine dynamics using piezo actuators; *Ricardo Caliari, ASML, DE (PMSC26145)* **P1.19** Reset control design by loop shaping to break precision barrier in linear control-based positioning of piezo-actuated stages; Integration with damping control and hysteresis compensator*; Ashkan Sebghati , TU Delft , NL (PMSC26146)*
Chair: Dick Laro	**Session 5: Linear, angular and position measurement systems**
11:40 – 12:00	**SK5.01 Robust Amplitude Control for Nanometre-Scale Oscillatory Motion in a Rolling Friction-Dominated Linear Stage** *Richard Albers, JPE, NL (PMSC26115)*
12:00- 12:15	**S5.02 Realization and characteristics of an aerostatically guided nanopositioning axis for high-vacuum applications** *Ludwig Herzog, IMMS GmbH, DE (PMSC26110)*

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12:15 - 12:30	**S5.03 Monolithic Position Measurement Interferometer Optimized for Electron Beam Applications** *Victor David, Keysight Technologies Inc., US (PMSC26112)*
12:30 - 12:45	**S5.04 Observer-Based Control of Flexible Modes for Over-Actuated Motion Systems** *Max Jans, MI-Partners, NL (PMSC26120)*
12:45 – 13:00	**S5.05 Design of a Direct-drive Magnetic Wobble Motor for High-Torque-Density Low Power Applications** *Taryn Loutit, Massachusetts Institute of Technology, US (PMSC26134)*
13:00 - 13:20	**Discussion**
13:20 – 13:30	**Closing remarks, Dick Laro, MI Partners, NL**
13:30 – 14:15	**Lunch and distribution of Precision Fair tickets**

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