TLC Session 1: Precision Design Wednesday Nov 5, 2025 1:45-4:00 PM		Session Chairs: Leon Chao Kumar Arumugam
PDI	Chao	Session Intro
PDK	de Jong	Session Keynote: Virtual Plan in Kinematic Couplings
PD1	Verdirame	A Survey of Passive Magnetic Bearings
PD2	Radgolchin	Novel Single-Axis Flexure Mechanism With Large Range Of Motion And Minimal Bearing Stiffness Drop
PD3	Bulla	Ultraprecision Machine Design For Large Mirror Manufacturing
PD4	Aguirre	Ultraprecision Spindle Motorization With Frameless Slotted Motors

TLC Session 2: Micro and Nano Technologies Thursday Nov 6, 2025 8:00-10:15 AM		Session Chairs: Michael Cullinan Robert Panas
MNI	Cullinan	Session Intro
MNK	Winkler	Session Keynote: Comparing state-of-the-art 2PP to competing processes – a take on precision, accuracy and throughput
MN1	Tsuji	Solid-State Electrochemical Soft Imprint For Direct Copper Nanopatterning In Optoelectronic Applications
MN2	Gülçür	Precision Prototyping Micromoulds For Microfluidics Using Custom Uv-Led Photolithography
MN3	Panas	Packaging and Demonstration of the Lightfield Directing Array
MN4	Yu	Closed-Loop Two-Photon Lithography Based On A Single-Cavity Dual-Comb Laser

TLC Session 3: Precision Manufacturing Thursday Nov 6, 2025 10:AM -2:10 PM		Session Chairs: Ping Guo Christopher Morgan
PMI	Guo	Session Intro
PMK	Wenzel	Session Keynote: IL1200 & IL1600 Series Vertical, Large Scale Ultra-Precision Diamond Turning Machines
PM1	Dupont	New Aerostatic Hybrid Bearing Technology For Improved Overload And Tool Collision Safety
PM2	Wang	Optical Meta-grating for Snapshot Multi-spectral Imaging
PM3	Shantiaeezade	Low Frequency Feed Modulation for Tool Eccentricity Cancellation and Chatter Avoidance in Milling
PM4	Sohn	Enhanced Single Point Diamond Rastering

TLC Session 4: Metrology Systems & Characterization Thursday Nov 6, 2025 2:15-4:10 PM		Session Chairs: Brandon D. Chalifoux Steven Gillmer
MetI	Chalifoux Gillmer	Session Intro
MetK	Köchert	Session Keynote: Deterministic thinking with a multi-wavelength interferometer
Met1	Arumugan	Classical metrology techniques applied to a tabletop Kibble balance
Met2	Cacace	Displacement interferometry for high-tilt applications
Met3	Liu	Simultaneous Lateral And Axial Displacement Detection Based On Moiré Fringes
Met4	Rhorer	Challenges in applying error budgets to dynamic material testing

TLC Session 5: Controls and Mechatronics Friday, November 7, 2025 8:30-10:30 AM		Session Chairs: Burak Sencer Dave Trumper
CMI	Sencer/Trumper	Session Intro
CMK	Pechgraber	Session Keynote: Decoupling Adaptation Of A 3-Dof Dual-Stage Positioning System For High-Precision Optical Inline Metrology
CM1	Beijen	Spatial Domain Repetitive Control With Application To A Peristaltic Pump
CM2	Kim	Electromagnetic Active Workpiece Holder for Tool-workpiece Relative Vibration Compensation
CM3	Yamaguchi	High Precision Machining Of Spiral Bevel Gears Using Adaptive Control
CM4	Ro	An Air Conditioning System for an Ultra-Precision Machine to Isolate Room Tempearure Variation

TLC Session 6: Applications Friday Nov 7, 2025 1:45-3:35 PM		Session Chairs: Eric Buice Jaime Berez
AI	Buice	Session Intro
AK	Burge	Session Keynote: Establishing position of complex optical surfaces and mechanical features with micron accuracy - day in and day out
A1	Kalidoss	DARPA ZENITH Liquid Mirror Telescope Program – Overview of error
A2	Laverty	Error Budgeting Ultrafast Laser Stress Figuring
A3	Hager	Accuracy Enhancement for Optimization-based Structured Light Profilometry
A4	Looman	Qualification setup to determine measurement uncertainty of beam-steering interferometry