

Special Session of the DFG Priority Program SPP2206 'KOMMMA'

Actuator 2021, Mannheim

Friday, February 19

Time	Title and Authors
11:00 – 11:20	A Consistent View on Cooperative Multistage Electrostatic Actuation Martin Hoffmann and Peter Conrad Microsystems Technology, Ruhr-University Bochum, Germany
11:20 – 11:40	Bi-stable Shape Memory NiTi-X / SU-8 Polymer Composites with a Tunable Glass Transition Temperature Duygu Dengiz, Sabrina Curtis, Prasanth Velvaluri, Lars Bumke, Justin Jetter, and Eckhard Quandt Institute of Materials Science, Kiel University, Germany
11:40 – 12:00	Development of Co-Integrated Shape Memory Actuators for Silicon Micro- and Nanomechanics Sanaz Rastjoo ¹ , Randy Fechner ¹ , Lars Bumke ² , Eckhard Quandt ² and Manfred Kohl ¹ ¹ Institute of Microstructure Technology, Karlsruhe Institute of Technology, Germany ² Institute of Materials Science, Kiel University, Germany
12:00 – 12:20	Design Concepts of Multistage Multistable Cooperative Electrostatic Actuation System with Scalable Stroke and Large Force Capability Hussam Kloub and Ulrich Mescheder Mechanical and Medical Engineering, Furtwangen University, Germany
12:20 – 12:40	Design and characterization of polymeric domes as biasing elements for dielectric elastomer membrane actuators Julian Neu ¹ , Sipontina Croce ¹ , Jonas Hubertus ² , Gianluca Rizzello ¹ , Günter Schultes ² , and Stefan Seelecke ^{1,3} ¹ Intelligent Material Systems Lab, Department of Systems Engineering, Saarland University, Saarbruecken, Germany ² Department of Sensors and Thin Films, University of Applied Sciences of Saarland, Saarbruecken, Germany ³ Center for Mechatronics and Automation Technologies (ZeMA) gGmbH, Saarbruecken, Germany
12:40 – 13:00	Modeling and simulation of compliant biasing systems for dielectric elastomer membranes based on polymeric domes

	<p>Sipontina Croce¹, Julian Neu¹, Jonas Hubertus², Gianluca Rizzello¹, Günter Schultes², and Stefan Seelecke^{1,3}</p> <p>¹Intelligent Material Systems Lab, Department of Systems Engineering, Saarland University, Saarbruecken, Germany</p> <p>²Department of Sensors and Thin Films, University of Applied Sciences of Saarland, Saarbruecken, Germany</p> <p>³Center for Mechatronics and Automation Technologies (ZeMA) gGmbH, Saarbruecken, Germany</p>
13:00 – 13:20	<p>Simulation of Static Pull-in Instability of Hybrid Levitation Microactuators Kirill Poletkin</p> <p>Institute of Microstructure Technology, Karlsruhe Institute of Technology, Germany</p>