

**Special Session of the DFG Priority Program SPP2206 'KOMMMA'**

**Actuator 2020, Mannheim**

**Thursday, June 18**

<b>Time</b>	<b>Title and Authors</b>
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 <sup>1</sup> , Randy Fechner <sup>1</sup> , Lars Bumke <sup>2</sup> , Eckhard Quandt <sup>2</sup> and Manfred Kohl <sup>1</sup> <sup>1</sup> Institute of Microstructure Technology, Karlsruhe Institute of Technology, Germany <sup>2</sup> 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 <sup>1</sup> , Sipontina Croce <sup>1</sup> , Jonas Hubertus <sup>2</sup> , Gianluca Rizzello <sup>1</sup> , Günter Schultes <sup>2</sup> , and Stefan Seelecke <sup>1,3</sup> <sup>1</sup> Intelligent Material Systems Lab, Department of Systems Engineering, Saarland University, Saarbruecken, Germany <sup>2</sup> Department of Sensors and Thin Films, University of Applied Sciences of Saarland, Saarbruecken, Germany <sup>3</sup> Center for Mechatronics and Automation Technologies (ZeMA) gGmbH, Saarbruecken, Germany

12:40 – 13:00	<p>Modeling and simulation of compliant biasing systems for dielectric elastomer membranes based on polymeric domes</p> <p>Sipontina Croce<sup>1</sup>, Julian Neu<sup>1</sup>, Jonas Hubertus<sup>2</sup>, Gianluca Rizzello<sup>1</sup>, Günter Schultes<sup>2</sup>, and Stefan Seelecke<sup>1,3</sup></p> <p><sup>1</sup>Intelligent Material Systems Lab, Department of Systems Engineering, Saarland University, Saarbruecken, Germany</p> <p><sup>2</sup>Department of Sensors and Thin Films, University of Applied Sciences of Saarland, Saarbruecken, Germany</p> <p><sup>3</sup>Center 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</p> <p>Kirill Poletkin</p> <p>Institute of Microstructure Technology, Karlsruhe Institute of Technology, Germany</p>