

4DMDA 2023



Conference Schedule

Day 1

September 7, 2023

Session 1			
Presentation Time (Atlanta Time)	Presentation Title	Presenting Author/s	Chair
08:30	Check in for in-person attendees		
09:00	Welcome Message for Conference Opening		Jerry Qi
09:10	Keynote 1: The Pioneering Journey of 4D Textiles	Thomas Gries	Mahdi Bodaghi
9:40	Keynote 2: DLP based Multimaterial 3D Printing for Multifunctional 4D Printing	Qi (Kevin) Ge	Mahdi Bodaghi
10:10	Sustainable Robotic Joints 4D Printing Using Reinforcement Learning	Moslem Mohammadi, Ali Zolfagharian	Mahdi Bodaghi
10:30	Meta-Laminar Jamming Actuators by 4D Printing	Mohammadreza L Dezaki, Mahdi Bodaghi	Ali Zolfagharian
10:50	Designing new Materials for 4D (Micro)printing	Christoph A. Spiegel, Li-Yun Hsu, Philipp Mainik, Eva Blasco	Ali Zolfagharian
11:10	4D printing of PLA/(PLA-TPU)-Based Metastructure: Examining	Saiyadali H Ladakhan, Rakshith B Sreesha,	Ali Zolfagharian

	the Mechanical, Thermal, and Shape Memory Properties	Somashekara M Adinarayanappa	
11:30-12:30	COFFEE/LUNCH BREAK		
Presentation Time (Atlanta Time)	Presentation Title	Presenting Author/s	Chair
12:30	Keynote 3: Sustainable Morphing Matter	Lining Yao	Frederic Demoly
13:00	4D Vertical Printing (4DZP): Hygro-Responsive Shape-Change Deformations with complex non-planar rest state geometries	Fabio Bianconi, Marco Filippucci, David Correa, Giulia Pelliccia	Frederic Demoly
13:20	Advanced Additive Manufacturing of Programmable Liquid Crystal Elastomer Structures via Melt Electrowriting	Mehrzaad Javadzadeh, J del Barrio and C Sánchez-Somolinos	Frederic Demoly
13:40	4D Printing: Probably the easiest way to produce thermoresponsive objects	Dilip Chalissery, Theodor Galambos, Supriya Cheerla, Fabian Ziervogel, Thorsten Pretsch	Mahdi Bodaghi
14:00	Effect of Textile Pre-stretch and Printed Geometry on the Curvature of PLA-Lycra 4D-Textiles	Stefano Pandini, Chiara Pasini, Antonio Fiorentino, Davide Battini, Andrea Avanzini, Ileana Bodini, Simone Pasinetti	Mahdi Bodaghi
14:20	Watertight and Failure Modes of Additive Manufactured Polymeric Material with Different Coats	Pedro H A Costa, C T Duarte, H F M de Queiroz, J.S.S. Neto, D K K Cavalcanti, M D Banea	Mahdi Bodaghi
14:40	4D Printing of Shape Memory Polymer via Extrusion Additive Manufacturing: Effect of various programming	Bijaya Bikram Samal, Anita Jena, Shailendra Kumar Varshney, Cheruvu Siva Kumar	Jerry Qi
15:00	Keynote 4: Design for Multi-Material 4D Printing	Frederic Demoly	Jerry Qi

Day 2

September 8, 2023

Presentation Time (Atlanta Time)	Presentation Title	Presenting Authors	Chair
09:00	Plenary 1: 4D: Beyond Printing	Skylar Tibbits	Jerry Qi
09:40	Conical Shells Made by 4D Printing of Composites	Suong Van Hoa, Mahmoud Fereidouni	Jerry Qi
10:00	4D Printed Low-Weight Foaming Polylactic Acid: Process-Structure-Shape Memory Relationships	Chadurvedi Venkatesan, Qi Xiaoying, Lee Yaw Chuan, Muthu Vignesh Vellayapan, Dennis Neo Wee Keong, Seet Hang Li, Nai Mui Ling Sharon, David Rosen	Jerry Qi
10:20	Joule Heating of 4D Printed On-Way and Two-Way PLA Grippers Using Nichrome Sheets	Enrico Adriel Soehardjianto, and Marwan Nafea	Devin J Roach
10:40	3D printing Programmable Liquid Crystal Elastomer Soft Pneumatic Actuators	Wei Liao, Zhongqiang Yang	Devin J Roach
11:00	Keynote 5: Defects on Components Produced by Additive Manufacturing: Problem or Opportunity?	Ana Paula Piedade	Devin J Roach
11:30	Keynote 6: Biological Inspiration and Local Materials for 4D Printed Composites	Antoine Le Duigou	Devin J Roach
12:00-12:40	COFFEE/LUNCH BREAK		
Presentation Time (Atlanta Time)	Presentation Title	Presenting Author	Chair
12:40	Plenary 2: 4D Printing Perspectives – Past, Present, Future	Martin Dunn	Jerry Qi

13:20	Towards Additive Manufacturing of Multi-Material, Superconducting Structures	Fabiano Carvalho de Castro Sene	Jerry Qi
13:40	Leveraging Metadata Ontology and Equation Expression Trees for 4D Printing Knowledge Extraction	Shengyu Liu, Kyoung-Yun Kim	Lijie Grace Zhang
14:00	Freeform Embedded 4D Printing of Liquid Crystal Elastomers	Luke McDougall, Jeremey Herman, Emily Huntley, Adam Cook, Timothy White, Bryan Kaehr, Devin J Roach	Lijie Grace Zhang
14:20	Design and Evaluation of High-gravitational Fused Deposition Modeling System	Xin Jiang, Ryo Koike	Devin J Roach
14:40	Multiphoton Lithography of 4D Materials	Bryan Kaehr	Devin J Roach
15:00	Keynote 7: Advanced 3D/4D Bioprinting and Nanotechnology for Complex Tissue Regeneration	Lijie Grace Zhang	Devin J Roach
15:30	Conference Wrap Up		Jerry Qi Mahdi Bodaghi

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