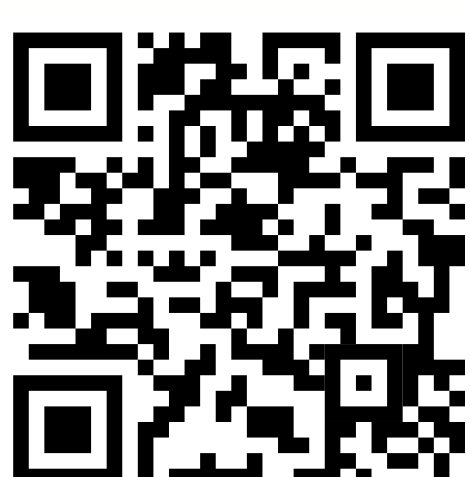




2nd Workshop on Representing and Manipulating Deformable Objects

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Time	Schedule	
08:30 - 08:45	Workshop introduction	
08:45 - 09:15	Kimitoshi Yamazaki:	Cloth manipulation based on hierarchical shape prediction
09:15 - 09:45	Youcef Mezouar:	The european project Softmanbot : handling deformable and flexible materials for the industry
09:45 - 10:25	Spotlight talks #1:	<ul style="list-style-type: none"> • Shape Control of Deformable Linear Objects with Offline and Online Learning of Local Linear Deformation • An SE(3)-based formulation of the shape servoing problem • Data Augmentation for Online Learning of Rope Manipulation • Learning Keypoints from Synthetic Data for Robotic Cloth Folding • Cloth manipulation and perception competition • Deep Recurrent Models for Nonlinear Model Predictive Control in Deformable Manipulation Tasks
10:25 - 11:00	Coffee break & Posters session #1:	<ul style="list-style-type: none"> • Planning with Model Preconditions for Water Manipulation • Data Augmentation for Online Learning of Rope Manipulation • Learning Keypoints from Synthetic Data for Robotic Cloth Folding • Cloth manipulation and perception competition • Deep Recurrent Models for Nonlinear Model Predictive Control in Deformable Manipulation Tasks
11:00 - 11:30	Ken Goldberg:	Real2Sim2Real: A Model for Deep Learning to Manipulate Deformable Objects
11:30 - 12:00	Andrea Cherubini:	See and shape: vision-based robot manipulation of non-rigid objects
12:00 - 12:40	Spotlight talks #2:	<ul style="list-style-type: none"> • Blind Manipulation of Deformable Linear Objects Based on Force Information from Environmental Contacts • Wire Point Cloud Instance Segmentation from RGBD Imagery with Mask R-CNN Contacts • Goal-Conditioned Model Simplification for Deformable Object Manipulation • Online Estimation of Point-based Volumetric Stiffness Model Using Joint Torque Sensors • Detection and Physical Interaction with Deformable Linear Objects • Grasp Transfer for Deformable Objects by Functional Map Correspondence
12:40 - 13:45	Lunch	
13:45 - 14:15	Shuran Song:	The Reasonable Effectiveness of Dynamic Manipulation for Deformable Objects
14:15 - 14:45	Rika Antonova:	Distributional Representations and Scalable Simulations for Real-to-Sim with Deformables
14:45 - 15:15	Spotlight talks #3:	<ul style="list-style-type: none"> • VIRDO: Visio-tactile Implicit Representations of Deformable Object • RoboCraft: Learning to See, Simulate, and Shape Elasto-Plastic Objects with Graph Networks • Learning Deformable Manipulation from Expert Demonstrations • Planning with Model Preconditions for Water Manipulation • DiffCloud: Real-to-Sim from Point Clouds with Differentiable Simulation and Rendering of Deformable Objects
15:15 - 16:00	Coffee break & Posters session #2:	<ul style="list-style-type: none"> • Blind Manipulation of Deformable Linear Objects Based on Force Information from Environmental Contacts • Online Estimation of Point-based Volumetric Stiffness Model Using Joint Torque Sensors • VIRDO: Visio-tactile Implicit Representations of Deformable Object • Learning Deformable Manipulation from Expert Demonstrations • DiffCloud: Real-to-Sim from Point Clouds with Differentiable Simulation and Rendering of Deformable Objects
16:00 - 16:30	Tucker Hermans & Isabella Huang	Large-Scale Simulation for Calibration-Free Sim to Real Transfer of Deformable Object Manipulation
16:30 - 17:00	Carolyn Matl:	Deformable Elasto-Plastic Object Shaping using an Elastic Hand
17:00 - 17:30	Panel discussion:	<div>Rika Antonova Shuran Song Tucker Hermans</div> <div>Carolyn Matl Isabella Huang</div>



Videos and extended abstracts are available at the link:
<https://deformable-workshop.github.io/icra2022/>

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