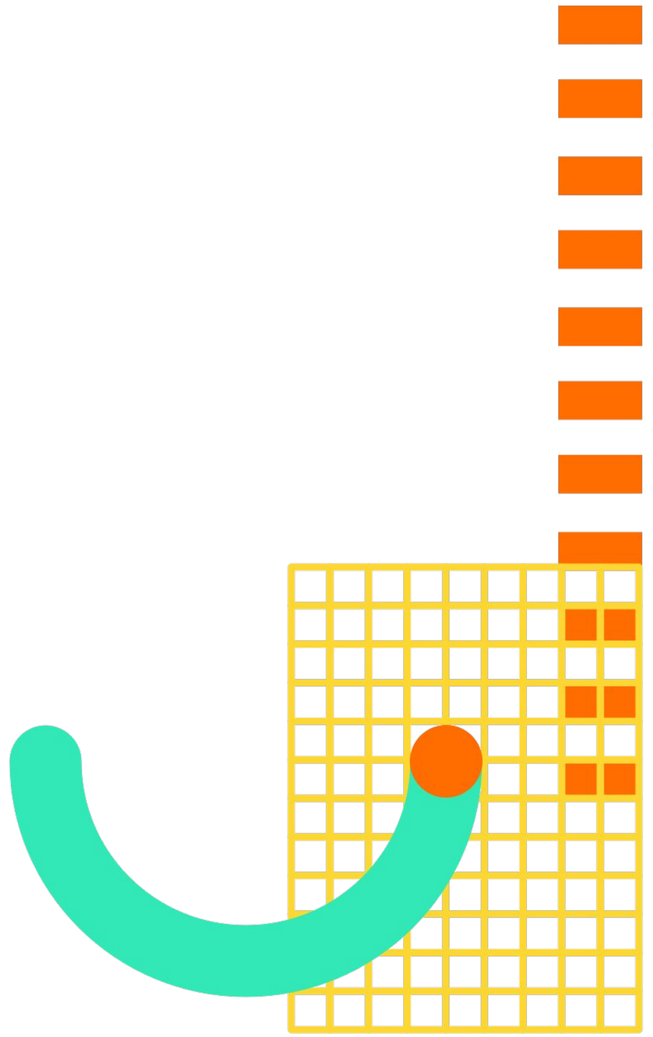
Robotics

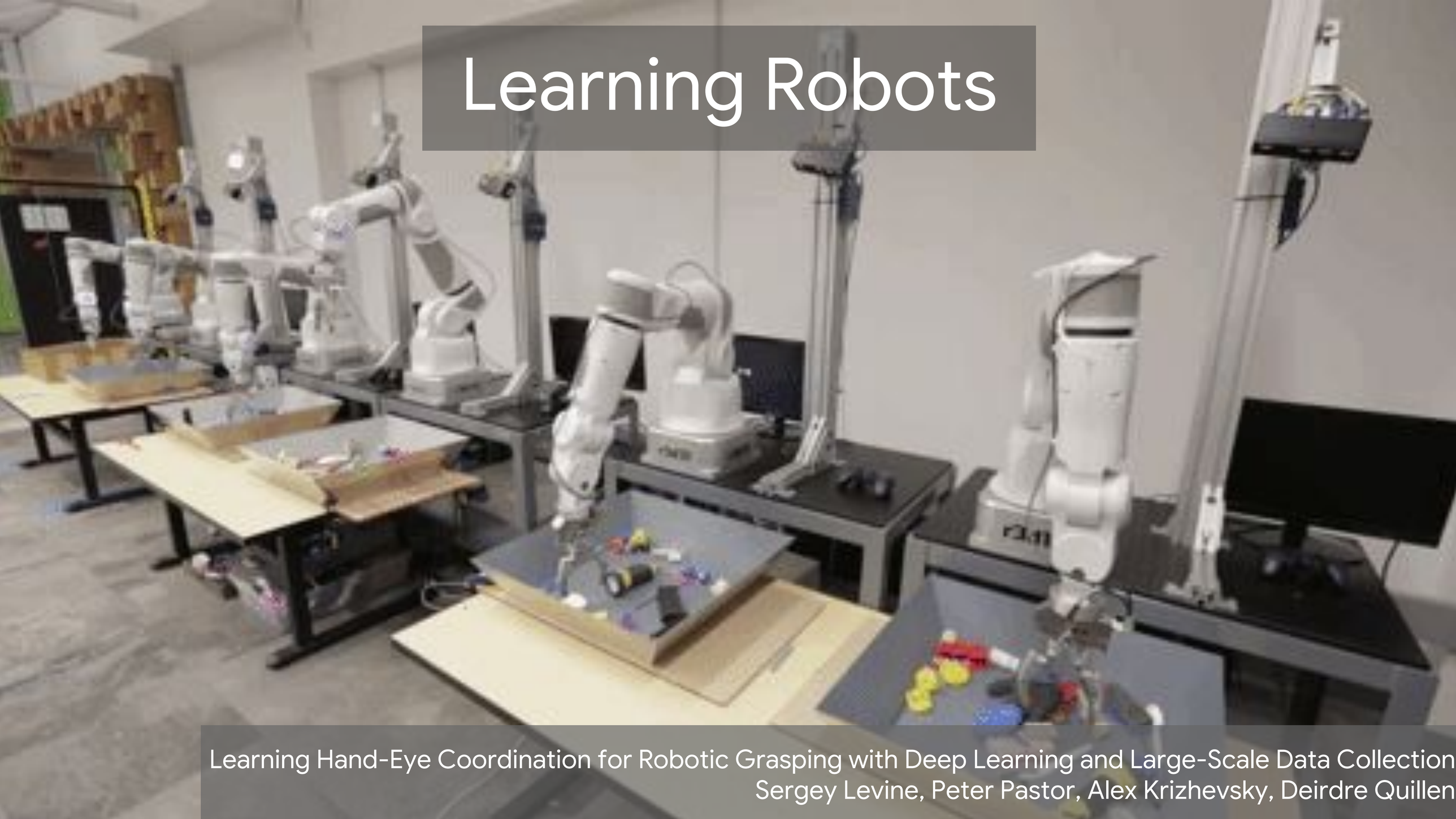
Vincent Vanhoucke



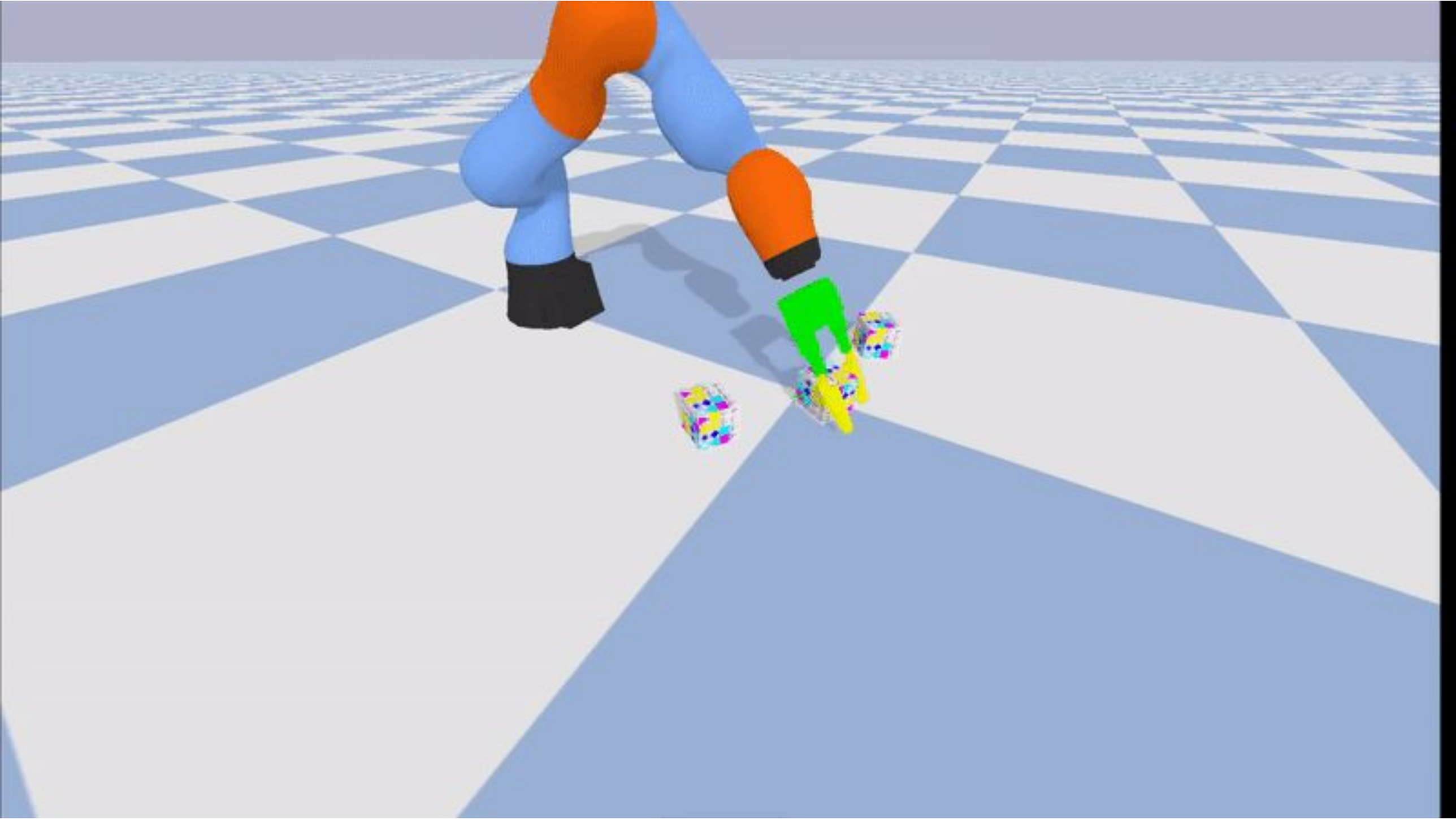
Yesterday’s robots were about control and precision

Today’s robots are about people

Learning Robots



Learning Hand-Eye Coordination for Robotic Grasping with Deep Learning and Large-Scale Data Collection
Sergey Levine, Peter Pastor, Alex Krizhevsky, Deirdre Quillen

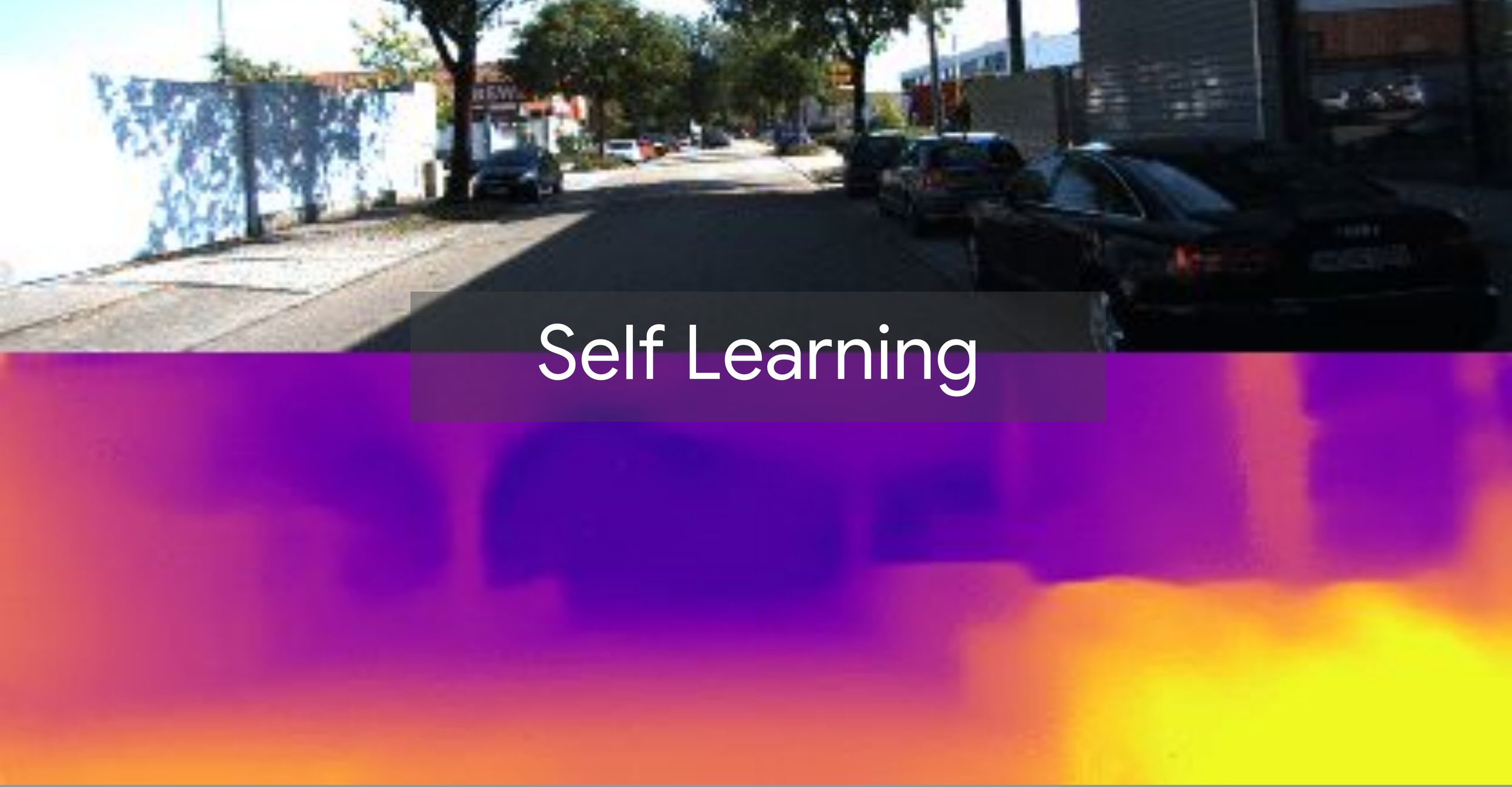


Domain Adaptation

Using Simulation and Domain Adaptation to Improve Efficiency of Deep Robotic Grasping, Konstantinos Bousmalis, Alex Irpan, Paul Wohlhart, Yunfei Bai, Matthew Kelcey, Mrinal Kalakrishnan, Laura Downs, Julian Ibarz, Peter Pastor, Kurt Konolige, Sergey Levine, Vincent Vanhoucke

Deep Reinforcement Learning

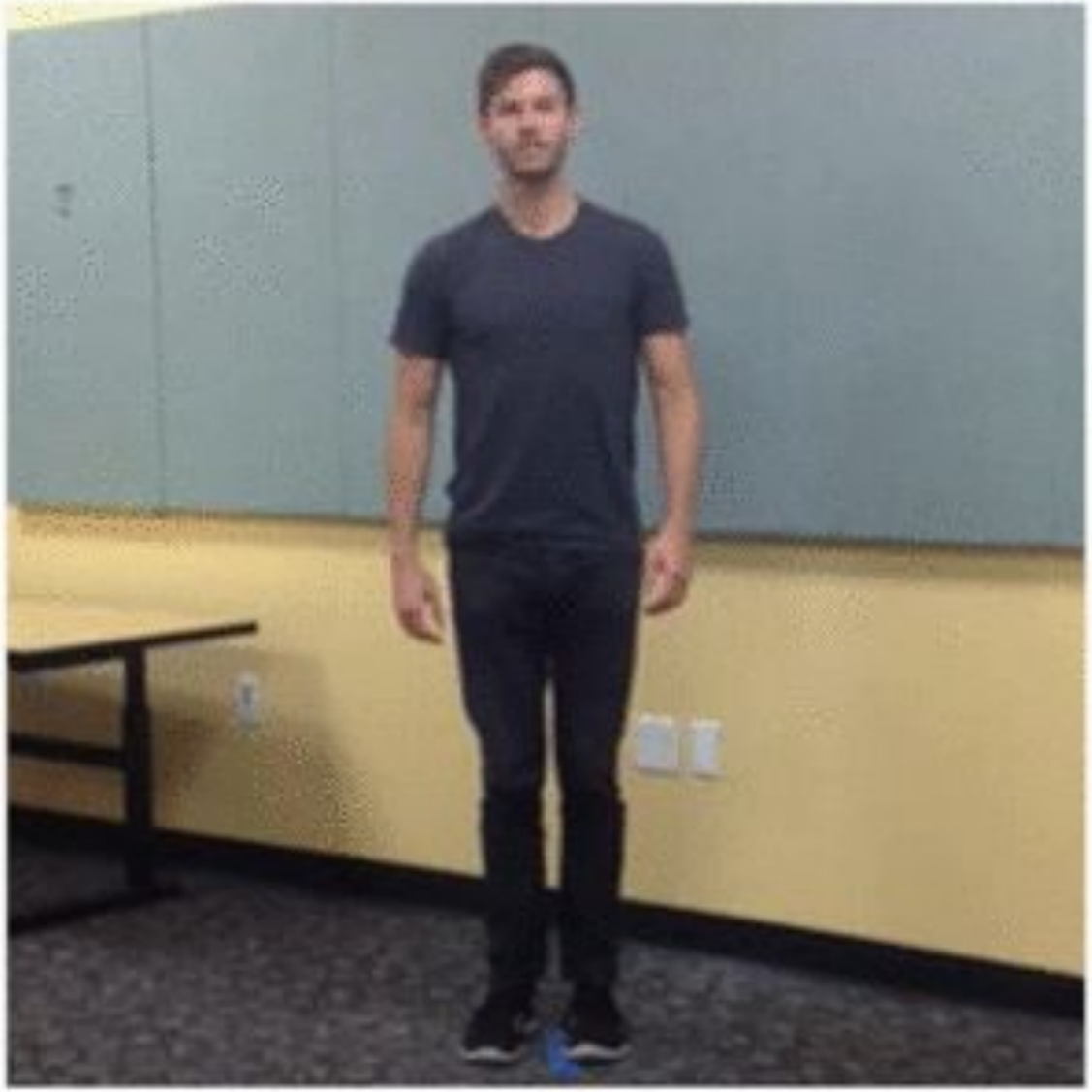
Sim-to-Real: Learning Agile Locomotion For Quadruped Robots
Jie Tan, Tingnan Zhang, Erwin Coumans, Atil Iscen, Yunfei Bai,
Danijar Hafner, Steven Bohez, Vincent Vanhoucke



Self Learning

Unsupervised Learning of Depth and Ego-Motion from Monocular Video Using 3D Geometric Constraints
Reza Mahjourian, Martin Wicke, Anelia Angelova

Visual Imitation



You see me pour

I picture **myself** pouring

Visual Imitation

Time-Contrastive Networks: Self-Supervised Learning from Video
Pierre Sermanet, Corey Lynch, Yevgen Chebotar, Jasmine Hsu, Eric Jang, Stefan Schaal, Sergey Levine

Learning robots

More information
g.co/brain/robotics