

# From Robots to Cobots

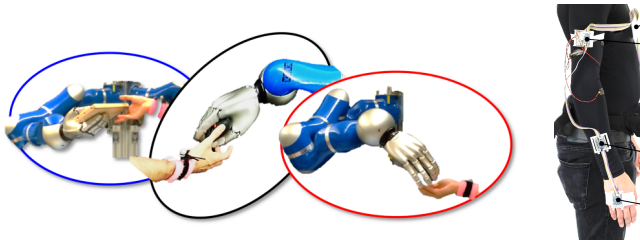
## Iterative Learning of a Skill Library of Interaction Primitives using Wearable Sensors and a 7DoF Robot Arm



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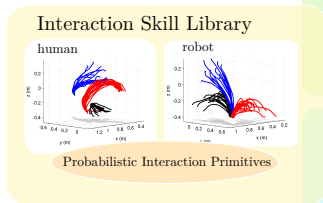
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- ▶ Intelligent Adaptive Robot Coworkers
- ▶ Build upon Interaction Primitives [Maeda et al., HUMANOIDS 2014]
- ▶ Online learning of a skill library for human-robot interaction



# From Robots to Cobots - Overview

- ▶ Use wearable IMUs and kinesthetic teaching to collect demonstrations
- ▶ Extend previous work with Bayesian Nonparametrics for incremental learning of Interaction Primitives



## Human-Robot Interaction



## Learn new Skills



- ▶ **You will learn:** Probabilistic Interaction Primitives, Online Learning of Gaussian Mixture Models, investigate Life long learning methods, work with real robots and ROS, ...