

Physical Human-Robot Interaction

Sensory augmentation for improved mobility in humans

- Light-touch based assistance during standing
- Virtual physical touch for increased awareness

Robots with human-like physical interaction

- Low-force, low-impedance robot with moderate delay
- Human-like assistance during overground walking

Role of interaction forces in a dyad

- Information exchange through forces
- Optimal arm impedance and configuration

Assistive robots, devices and environment

- Motorized walking aide for older adults
- Physical assistance provided by the environment
- Energy recycling from human movement



Safe, human-like and effective physical interaction between robots and humans

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Keywords

- Physical human-robot interaction, rehabilitation robotics, sensory augmentation

Recognitions

- PBS News Hour, "These stairs recycle your energy so they're easier to climb"
- Samsung scholarship, 2004-2010