

## RAL Award Talks

**Date / Time** Aug. 23 (Tue.), 2022 / 14:00-15:30

**Room** Room 515

**Session Chair** TBA

[TuO2B.1]

14:00-14:15

### **Predicting Sagittal-Plane Swing Hip Kinematics in Response to Trips**

Shannon M. Danforth, Xinyi Liu, Martin J. Ward, Patrick D. Holmes, and Ram Vasudevan

[TuO2B.2]

14:15-14:30

### **Enhancing Gait Assistance Control Robustness of a Hip Exosuit by Means of Machine Learning**

Xiaohui Zhang, Enrica Tricomi, Francesco Missiroli, Nicola Lotti, Casimir Bokranz, Daniela Nicklas, and Lorenzo Masia

[TuO2B.3]

14:30-14:45

### **Is a Robot Needed to Modify Human Effort in Bimanual Tracking?**

Nuria Peña Perez, Jonathan Eden, Ekaterina Ivanova, Etienne Burdet, and Ildar Farkhatdinov

[TuO2B.4]

14:45-15:00

### **Immediate Biomechanical Effects of Providing Adaptive Assistance with an Ankle Exoskeleton in Individuals After Stroke**

Jesús de Miguel-Fernández, Camille Pescatore, Alba Mesa-Garrido, Cindy Rikhof, Erik Prinsen, Josep M. Font-Llagunes, and Joan Lobo-Prat

[TuO2B.5]

15:00-15:15

### **Ecological Validation of Machine Learning Models for Spatiotemporal Gait Analysis in Free-Living Environments using Instrumented Insoles**

Ton T. H. Duong, David Uher, Jacqueline Montes, and Damiano Zanotto

[TuO2B.6]

15:15-15:30

### **Thumb Stabilization and Assistance in a Robotic Hand Orthosis for Post-Stroke Hemiparesis**

Ava Chen, Lauren Winterbottom, Sangwoo Park, Jingxi Xu, Dawn M. Nilsen, Joel Stein, and Matei Ciocarlie