



2. Workshop 2

August 21st (Sunday) 09:30-15:15 / Room 522

Title	From in-clinic rehabilitation to home assistance: wearable robotics in the continuum of care
Organizers	<ul style="list-style-type: none"> ● Dr. Emilio Trigili, The BioRobotics Institute, Scuola Superiore Sant'Anna, Pontedera (PI), Italy. Email: emilio.trigili@santannapisa.it ● Prof. Arturo Fomer-Cordero, Head of the Biomechatronics Lab, Mechatronics Dept. Escola Politécnica da Universidade de Sao Paulo (Brasil). Visiting Professor (CAPES) at The BioRobotics Institute, Scuola Superiore Sant'Anna, Pontedera (PI), Italy. Email: aforner@usp.br ● Dr. Simona Crea, The BioRobotics Institute, Scuola Superiore Sant'Anna, Pontedera (PI), Italy. Email: simona.crea@santannapisa.it ● Prof. Nicola Vitiello, The BioRobotics Institute, Scuola Superiore Sant'Anna, Pontedera (PI), Italy. Email: nicola.vitiello@santannapisa.it
Abstract	<p>The high incidence of age-associated chronic diseases, including stroke, is causing a huge demand for physical and cognitive rehabilitation. The access to rehabilitation services has been restricted further after the COVID-19 pandemic, and a continuum of care from the hospitalization to the home assistance is not always guaranteed. Robotic technologies as wearable robots and virtual/augmented reality (AR/VR) system represent innovative solutions for movement assistance, monitoring and treatment, to support patients across different stages of recovery. The objective of this workshop is to discuss the current trends and challenges of integrating such technologies into the rehabilitation continuum of care. A multi-disciplinary group of experts and academic researchers will provide an overview of the latest advancements regarding the development of wearable robots and AR/VR systems for rehabilitation and home assistance, the use of robotics for quantitative clinical assessment, neuromechanical models and mechanisms of neuroplasticity in robot-aided rehabilitation. After the presentations, a round table will be opened to synthesize current views and suggest future directions to guide the development of the next-generation devices to serve the continuum of care spectrum, focusing on their translation to the healthcare industry and real-world applications.</p>

List of Talks

1	09:30-09:40 (10 min)	Introduction
First Slot (125 min)		
1	9:40-10:20 (40 min)	Michelle J. Johnson (online) Fabrizio Sergi (online)
2	10:20-10:30 (10 min)	Short Break
3	10:30-11:10 (40 min)	Hermano Igo Krebs (online) Marcia O'Malley (online)
4	11:10-11:45 (35 min)	Round Table #1
Lunch (11:45 - 13:00)		
Second Slot (135 min)		
1	13:00-14:00 (60 min)	Robert Riener (in person) Lorenzo Masia (in person) Ang Wei Tech (online)
2	14:00-14:10 (10 min)	Short Break
3	14:10-14:50 (40 min)	Sandra Hirche (online) Laura Marchal-Crespo (online)
4	14:50-15:15 (25 min)	Round Table #2

