Friday, March 3, 2023

TIME	Event	Location
7:45-8:00	Check-in at Registration Desk	TCC 4th floor
8:00-8:30	Breakfast	The Forum (TCC 450)
	Welcome & Introductions	*The Forum (TCC 450)*
8:30-8:35	USC: Dr. Francisco Valero-Cuevas, Professor of Biomedical Engineering and of the Division of Biokinesiology and Physical Therapy	
8:35-8:40	USC: Dr. Yannis Yortsos, Dean of the Viterbi School of Engineering	
8:40-8:45	USC: Dr. James Gordon, Associate Dean and Director, Division of Biokinesiology and Physical Therapy	
8:45-8:50	NSF: Dr. Susan Margulies, Assistant Director, Directorate for Engineering (Pre recorded)	
8:50-8:55	NSF: Dr. Grace Hwang, Program Director, Directorate for Engineering, Disability and Rehabilitation Engineering Program	
8:55-9:00	NIH: Dr. Theresa Cruz, Director of the National Center for Medical Rehabilitation Research which is part of the NIH's Eunice Kennedy Shriver National Institute of Child and Human Development	
	Modeling Adaptation & Plasticity - Moderators: Joshua Cashaback & Seungmoon Song	*The Forum (TCC 450)*
9:00-9:30	Using large heterogeneous neuroimaging datasets to model stroke rehabilitation outcomes: Sook-Lei Liew	
9:30-10:00	Co-adaptive therapies to shape user learning via plasticity-aware decoding: Amy Orsborn	
10:00-11:00	Coffee & Poster Session	Franklin Suites (TCC 350)
11:00-11:15	The Role of Reinforcement-Based and Error-Based Processes on Exploratory Motor Behavior in Neurologically Intact and Parkinson's Disease: Joshua Cashaback	
11:15-11:30	Characterization of locomotor adaptation and generalization dynamics from high-dimensional neuromuscular data: Dulce Marsical	
11:30-11:45	A novel graph diffusion framework for estimating neural communication towards personalized neurorehabilitation: Felix Schwock	
11:45-12:00	Neuroplasticity and improved speech perception in cochlear implant users: Ariel Edward Hight	
12:00-1:00	Lunch	Franklin Suites (TCC 350)
	Modeling for Personalization - Moderators: Madhur Mangalam & Natalija Katic	*The Forum (TCC 450)*
1:00-1:30	Personalizing exoskeleton assistance in the real world: Learning models of human-device interaction to leave the lab behind: Steve Collins	
1:30-2:00	Integrating medical imaging and iterative modeling approaches for personalized simulation: Katherine Saul	
2:00-3:00	Coffee & Poster Session	Franklin Suites (TCC 350)
3:00-3:15	Optimal Personalized Designs of Spring-Network Devices: James Patton	
3:15-3:30	Rapidly personalizing models of stimulation-evoked neural responses with meta-learning: Guillaume Lajoie	
3:30-3:45	Age- and stroke-related impairments in the neuromuscular control of dynamic balance during walking: Jessica Allen	
3:45-4:00	Modeling Brain-Behavior Relationships after Stroke to Advance Neurorehabilitation: David Lin	
4:00-5:30	Lab Tours	RTH/MCB

TIME	Event	Location
6:00-9:00	Banquet Dinner	The 1923 Club at The Coliseum

Saturday, March 4, 2023

TIME	Event	Location
8:00-9:00	Breakfast	The Forum (TCC 450)
	Modeling Human-Device Interactions - Moderators: Haohan Zhang & Mark Price	*The Forum (TCC 450)*
9:00-9:30	Understanding the utility of haptic feedback in teleoperated and assistive robots: Jeremy D. Brown	
9:30-10:00	Toward Automated Assessment of Human-Human and Human-Robot Interaction for Neurorehabilitation: Michelle Johnson	
10:00-11:00	Coffee & Poster Session	Franklin Suites (TCC 350)
11:00-11:15	Computational Treatment Design of Adaptive Treadmill Controllers: Kayla Pariser	
11:15-11:30	Modeling human-exoskeleton interactions to predict neuromuscular engagement during walking with targeted resistance: Zachary Lerner	
11:30-11:45	A design-optimization framework for compliant implanted prostheses that restore joint function: Brandon Peterson	
11:45-12:00	Modeling afferent tactile responses from the sole of the foot: Natalija Katic	
12:00-1:00	Lunch	Franklin Suites (TCC 350)
	Modeling in the Wild - Moderators: Jessica Allen & Amber Chou	*The Forum (TCC 450)*
1:00-1:30	Portable, in-clinic, video-based analysis of gait impairments: James Cotton	
1:30-2:00	Modeling to Enable Personalized and Preventative Digital Medicine in the Wild: Ryan McGinnis	
2:00-3:00	Coffee & Poster Session	Franklin Suites (TCC 350)
3:00-3:15	Souvenir: a case study of challenges and opportunities in the integration of computational intelligence with wearable rehabilitation technology in acute care and at-home settings: Robert Scheidt	
3:15-3:30	Using Big Data and a Variety of Modeling Approaches to Advance Rehabilitation Care: George Collier	
3:30-3:45	Modeling in-the-wild effects of gait assistive devices through neuromechanical simulations and deep reinforcement learning: Seungmoon Song	
3:45-4:00	Measurement of neurodivergent visuomotor skills in the wild: Haylie Miller	
	Closing session	*The Forum (TCC 450)*
4:00-5:00	NSF and NIH Meet & Greet	
5:00	Closing remarks: Dr. Francisco Valero-Cuevas	