

23 September 2021

24 September 2021

25 September 2021

10:00 - 11:30 CET

SESSION 4A

## Virtual agents and virtual avatars

*Moderator: Anne-Hélène Olivier, France*

An interdisciplinary approach between Human Movement Sciences and Digital Sciences to understand collision avoidance behaviour between pedestrians, **Anne-Hélène Olivier, France**  
Embodiment of virtual self-avatars to induce proprioceptive illusions and affect motor control, **David Labbé, Canada**  
Interactions with virtual agents and avatars for locomotor rehabilitation, **Anouk Lamontagne, Canada**  
Embodying an asymmetrical virtual body: what are the impacts on the user's motor behaviour? **Valentin Vallageas, Canada**  
Training with Agency-Inspired Feedback from a Sensor Glove in Virtual Reality to Improve Grasp Performance, **Mingxiao Liu, USA**

10:00 - 11:30 CET

SESSION 12A

## Coming to consensus about terminology

*Moderators: Mindy F. Levin, Canada & Judith Deutsch, USA*

Virtual Rehabilitation: History and Definitions, **Mindy F. Levin, Canada**  
Active Video Games and Exergames: History and Definitions, **Judith Deutsch, USA**

10:00 - 11:30 CET

SESSION 20A

## Virtual Rehabilitation and Brain-Computer interface and Neurofeedback

*Moderator: Athanasios Vourvopoulos Portugal*

EEG-based Brain-Computer Interfaces and VR for Neurorehabilitation, **Athanasios Vourvopoulos, Portugal**  
BCI-driven functional electrical stimulation for stroke rehabilitation, **Serafeim Perdakis, UK**  
Training on an eye-controlled game: a fMRI study with a stroke patient, **Bárbara Rachel García-Ramos, Spain**  
ARRoW-CP: Virtual walking rehabilitation for children with cerebral palsy. Game design framework and Preliminary results, **Anne-Laure Guinet, France**

12:45 - 14:15 CET

SESSION 8A

## VR and computational techniques to enhance rehabilitation

*Moderator: Tamar Weiss, Israel*

Dynamic personalization of virtual games as a tool to enhance upper limb and trunk rehabilitation for children with cerebral palsy, **Tamar Weiss, Israel**  
Using Pose Estimation and Machine Learning to predict Fugl-Meyer and Balance Test scores in patients, **Hagit Hel-Or, Israel**  
Harnessing Technology for Precision Rehabilitation, **Rachel Profitt, USA**  
Using Machine Learning for classifying individuals with Validating Machine Learning for classifying individuals with Concussion using VR-based Posturography and Clinical Assessments, **Michael James Cleek**  
Motion Tracking Using AI and Standard Video for Exergaming, **Elise Vonstad, Norway**  
Multi-sensory feedback for upper-extremity myoelectric control, **Sean Sanford, USA**  
3D Body Landmark Detection for Movement Tracking in VR Rehabilitation, **Bhawna Shiwani**

12:45 - 14:15 CET

SESSION 16A

## Measuring behavioral change, motivation, engagement in VR

*Moderator: Philippe Archambault, Canada*

Rehabilitation and skill transfer from virtual reality to the real world, **Philippe Archambault, Canada**  
Considerations for ethical and equitable use of telerehabilitation, **Dahlia Kairy, Canada**  
Cognitive stimulation through OroCognitive, a virtual reality app for older people, **Adriana Gómez, Spain**  
Parents & children experiences using a mixed-reality videogame for home-based rehabilitation in children with hemiplegia, **Daniela Chan-Viquez, Canada**  
Motivation for rehabilitation: Young people with brain injuries' experiences of virtual reality innovations for therapy, **Dido Green, UK**

12:45 - 14:15 CET

SESSION 24A

## Breaking down barriers to clinical uptake of VR

*Moderators: Astrid Ferreira, Australia & Dido Green, UK*

From Evidence to Practice – Applications for VR in rehabilitation, **Dido Green, UK**  
Bridging the Disciplines – Perspectives from a Computer Scientist, **Crina Grosan, UK**  
Knowledge Translation – Best practices for promoting the sustainable, evidence-based uptake of VR in rehabilitation, **Danielle Levac, Canada**  
At the Coal Face – Clinical scenarios, Melanie Burrough, **Melanie Borough, UK**  
An Affordable, Wearable Virtual Rehabilitation Setup, **Marek Sierotowicz, Germany**  
Debate on breaking down barriers to clinical implementation

18:00 - 19:30 CET

SESSION 4B

## Coming to consensus about terminology

*Moderators: Mindy F. Levin, Canada & Judith Deutsch, USA*

Virtual Rehabilitation: History and Definitions, **Mindy F. Levin, Canada**  
Active Video Games and Exergames: History and Definitions, **Judith Deutsch, USA**

18:00 - 19:30 CET

SESSION 12B

## Virtual Rehabilitation and Brain-Computer interface and Neurofeedback

*Moderator: Athanasios Vourvopoulos, Portugal*

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BCI-driven functional electrical stimulation for stroke rehabilitation, **Serafeim Perdakis, UK**  
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SESSION 20B

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Bridging the Disciplines – Perspectives from a Computer Scientist, **Crina Grosan, UK**  
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*Moderator: W. Geoffrey Wright, USA*

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