

WORLD CONFERENCE ON VIRTUAL REHABILITATION 2026

PRESENTED BY **XR4REHAB & ISVR**

25-26 JUNE 2026, CORK, IRELAND

PROGRAMME



XR 4 REHAB
SHARE FOR FUTURE CARE

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INTERNATIONAL SOCIETY FOR
VIRTUAL REHABILITATION

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THURSDAY, 25 JUNE 2026

09.00

Welcome

By Prof. Helen Whelton, Head of College of Medicine and Health, University College Cork (IE)

09.10

Conference Opening

By Remco Hoogendijk, XR4REHAB and Philippe Archambault, ISVR

09.15

Opening Keynote - **Better Together: Why Rehab's Future Lives at the Intersections**

Zayna Khayat (CA)

10.00

Q & A

10.15

Catch a Rising Star

Stephanie Crowe (UK)

10.25

Coffee & exhibition

11.00

Expert Insight - **From pilot to pathway: Embedding XR in biopsychosocial rehabilitation**

Jose Ferrer Costa (ES)

11.20

Free Papers - **Implementation, regulation, innovation, tech development**

- 1 **Reporting guideline for therapeutic immersive virtual reality interventions: International eDelphi study (INVIRTUE)**
Syl Slatman (NL)
- 2 **Neurocognitive and attentional differences between face-to-face and virtual interactions: Implications for remote rehabilitation**
Zhiyang Zhang (CN)
- 3 **Scale-Up4Rehab: Formative evaluations to improve the development and implementation of a digital platform for virtual rehabilitation care**
Rikke Aune Asbjørnsen (NL)
- 4 **Professional innovation with technology in rehabilitation care. Preliminary results and lessons learned from applied sciences**
Robin Vermeulen & Jeffrey van der Ven (NL)
- 5 **Combining virtual reality and cognitive behavioral principles in treating long-term pain: A feasibility study**
Erling Becker Aarseth (NO)

12.10

Expert Insight – **Perceiving and interacting with objects in virtual environments: Myths and realities**

Mindy Levin (CA)

12.30

1 Minute Wonders*

See page 7

12.50 - 13.55

Lunch, exhibition & poster walks*

See page 8

13.55 - 14.55 Parallel Sessions

DR DORA ALLMAN ROOM	THE SHTEPPS	AULA MAXIMA
Implementing and Dosing VR Interventions for Neurorehabilitation <i>Dahlia Kairy (CA) and Danielle Levac (CA)</i> <i>Moderation: Marika Demers (CA)</i>	XR in Education <i>Natasha Hinwood (IE) and Nick Peres (UK)</i> <i>Moderation: Joseph McVeigh (IE)</i>	Free Papers - Physical rehabilitation/activity 6 Learning to move in a virtual environment: Do attentional deficits matter? <i>Moshe Aharoni (IL)</i> 7 Development of a virtual reality solution enabling full-body ownership illusions during multi-joint lower-limb exercises: Addressing real-time motion tracking challenges <i>Manca Opara Zupančič (SI)</i> 8 Operationalizing “Nothing About Us Without Us”: structured co-design of a VR road safety game for powered mobility device users <i>Philippe Archambault (CA)</i> 9 An augmented reality tool for obstacle avoidance rehabilitation paradigms <i>Shachar Maidenbaum (IL)</i> 10 Virtual reality-derived digital biomarkers of sensory reweighting across the lifespan <i>Geoffrey Wright (US)</i> 11 Preliminary evaluation of position and velocity accuracy of HTC VIVE ultimate trackers during 10m walking test <i>Anouk Lamontagne (CA)</i>

15.00 ISVR Early Career Investigator talk - **Innovations in pediatric rehabilitation: Co-designing the future of care**
Tatiana Ogourtsova (CA)

15.20 **Refreshments, exhibition & posters**

15.55 Round Table Discussion – **Business, practice and Research: Better Together!**
Chaired by G. Wright (US) - With Jose Ferrer Costa, Grigore Burdea, Kiki Coppelmans

16.45 **Project in the Spotlight**
12 NeuroXRRehab COST Action extended reality neurorehabilitation of spatial neglect and related disorders after brain injury
Iris Brunner (NO/DK)

16.55 Expert Insight – **Precision meets motivation: Advancing stroke motor learning through virtual reality and behavioral science**
Marika Demers (CA)

17.15 **Closure day 1**

FRIDAY, 26 JUNE 2026

DR DORA ALLMAN ROOM

08.00 Student Mentoring Breakfast

*With mentors: Denis Martin, Joseph McVeigh, Anouk Lamontagne, Tal Krasovsky
Geoffrey Wright, and others*

AULA MAXIMA

09.00 Keynote - **Adoption is not enough: Sustainability as the next challenge for XR in rehabilitation**

Danielle Levac (CA)

09.45 Q & A

10.00 Expert Insight - **Mindset XR - How systematic scaling of XR health solutions created a market in the UK**

Ross O'Brien (UK)

10.20 Free Papers - **Implementation, regulation, innovation, tech development**

13 From leisure to rehabilitation: A playground-based virtual reality intervention for children with ADHD

Sara Arlati (IT)

14 Immersive active virtual reality in school settings for children and adolescents: A scoping review

Sonia Ortega-Gómez (ES)

10.40 Coffee & exhibition

11.15 Expert Insight - **Innovation at the boundary: A decade of XR in the NHS**

Nick Peres (UK)

11.35 Project in the Spotlight

15 Advancing cognitive rehabilitation through extended reality: An integrated, adaptive VR platform-Vespa 2.0

Emanuele Maria Merlo (IT)

11.45 Gold Sponsor talk - **Flow**

Tristan Gibbins (IS)

11.55 1 Minute Wonders* → See page 9

12.20 - 13.45 Lunch & exhibition & poster walks* → See page 10

13.45 - 14.45 Parallel Sessions

DR DORA ALLMAN ROOM	THE SHTEPPS	AULA MAXIMA
The Realist Synthesis <i>Beate Dejacco (NL) and Rebecca Hunter (UK)</i>	The industrial complex <i>Ross O'Brien (UK)</i>	Free Papers - Neuro Rehabilitation 16 Conscious perception of error augmentation in a virtual environment for stroke rehabilitation <i>Philippe Archambault (CA)</i> 17 Joystick-driven pedestrian circumvention in virtual reality to study avoidance behaviour in chronic moderate-to-severe traumatic brain injury <i>Anouk Lamontagne (CA)</i> 18 How motor learning principles are incorporated in virtual stroke rehabilitation: A scoping review <i>Marika Demers (CA)</i> 19 Comparing upper limb movements in AR games and therapist-guided exercises <i>Noel Keijsers (NL)</i> 20 Stroke mortality prediction for virtual rehabilitation: An explainable AI approach <i>Prosperity Oguama (PT)</i> 21 Application of interactive tools in the motor rehabilitation of a pediatric patient following ischemic stroke: A case report <i>Yoás Ramírez-Graullera (MX)</i>

14.50 ISVR Distinguished Service Speaker - **Where neuroscience meets technology: My journey through the past, present, and future of virtual rehabilitation**
Joyce Fung (CA)

15.10 - 15.50 Refreshments, exhibition & posters

15.50 Awards

16.05 Expert Insight – **Relearning nouns when your brain is lost to Alzheimer's**
Grigore Burdea (US)

16.25 Closing Keynote – **The Times are a-changin: what the future of XR rehabilitation may hold**
Jeremy Lewis (UK)

17.10 **Closing remarks**

17.15 **Closure**

POSTER PROGRAMME

DAY 1 – 25 June 2026

“ONE-MINUTE WONDERS”

Theme: Human experience, perception, and behavioral adaptation in XR, including emotional response, embodiment, sensory integration, and user engagement.

- P01** **Moving to Health – Embodied VR exposure therapy as a disruptive paradigm in mental health rehabilitation**
Ebbel Iwema (NL)
- P02** **Assessing spatiotemporal gait parameters during augmented-reality cueing in Parkinson’s disease**
Melvyn Roerdink (NL)
- P03** **Rehabilitation patients’ intention to use home-based VR relaxation – a flashmob study**
Rikke Aune Asbjørnsen (NL)
- P04** **Sex differences in self-efficacy improvements among adolescents following a virtual reality relaxation and nature exposure intervention**
Anna Carballo-Márquez (ES)
- P05** **Virtual reality for rehabilitation of shoulder pain. A focus group study to explore the experiences and perspectives of people living with shoulder pain**
Niamh Brady (IE)
- P07** **Postural adaptation to a virtual reality roller coaster ride among young and older adults – indications for fall prevention and rehabilitation**
Ulrik Röijezon (SE)
- P08** **A comparison of learning effects in obstacle circumvention strategies across augmented, virtual and physical reality**
Saksham Gupta (CA)
- P09** **Perceived object reality influences walking trajectories in augmented and virtual environments**
Yuliya Liberman (US)
- P10** **Effects of dual-tasking and visual input on self-selected walking speeds: Preliminary results**
Geoffrey Wright (US)
- P11** **Age-related differences in virtual reality-based sensory integration balance scores in children with and without autism spectrum disorder**
Rylee Ramberg (US)
- P12** **Assessment of postural control complexity in autism with virtual reality: A sample entropy approach**
Jason Bongard (US)
- P13** **Effects of surface and visual manipulations on balance performance in stroke: A virtual reality sensory integration assessment study**
Geoffrey Wright (US)

POSTER WALKS

1. PAIN, MENTAL HEALTH & PERCEPTION POSTER WALK

- P14** **ROHKEA VR: Implementing a home-based immersive Virtual Reality-Cognitive Behavioural Therapy (VR-CBT) intervention for chronic pain**
Phillipa Newton-Cross (UK)
- P15** **Validating XR-compatible affective sensing for objective detection of chronic pain during activities of daily living**
Andrew Graham (UK)
- P16** **Effects of combined resistance training and virtual reality on clinical, functional and autonomic parameters in women with fibromyalgia: Study protocol for a randomized controlled trial**
Borja Sañudo (ES)
- P17** **Breaking the pain barrier: Exploring the feasibility of virtual reality (VR) as an educational tool in chronic pain**
Natasha Hinwood (IE)
- P18** **A virtual reality tool for place attachment therapy for helping people who have lost their homes**
Ilan Vol (IL)
- P19** **Study of multidimensional dyspnoea through the controlled manipulation of sensorimotor expectations during physical exercise using immersion in a virtual reality environment**
Amaia Lizaso-Ceciaga (ES)

2. ENGAGEMENT, GAMIFICATION & EXERGAMING POSTER WALK

- P21** **WE PLAY | ON JOUE: Family-centered virtual reality games room for children with developmental disabilities and their families**
Tatiana Ogourtsova (CA)
- P22** **Feasibility of active video games to promote physical activity in children and youth isolated post bone marrow transplant : A feasibility study**
Danielle E. Levac (CA)
- P23** **Immersive virtual reality versus conventional screen-based exergaming: Study protocol to examine executive function, motivation, and physical activity in young adults**
Adrián Feria (ES)
- P24** **Feasibility of a revised home-based serious game cognitive training system TREKOG in elderly**
Markéta Zakurdajeva (CZ)
- P25** **Home-based exergaming following single-session perturbation-based training to enhance resistance to falls after stroke**
Ilse Leijen (NL)

“ONE-MINUTE WONDERS”

Theme: Clinical translation, quantitative assessment, and intelligent systems in XR rehabilitation, including AI, biosignals, and real-world deployment.

- P26** **What do clinicians tell us about their use of telerehabilitation and associated ethical and equity-related considerations? Findings from a national rehabilitation clinician survey in Canada**
Dahlia Kairy (CA)
- P27** **Co-development of a virtual reality software focused on service encounters for people living with aphasia**
Emna Fakhfakh (CA)
- P28** **Execution-specific effects of visuomotor spatial incongruence in virtual rehabilitation tasks**
Yuanjie Zhu (CN)
- P29** **Increasing reaching movement amplitude through visual and proprioceptive stimulation**
Eloi Dieterlen (CA)
- P30** **Feasibility of augmented reality-assisted motor-cognitive training in patients with early neurodegenerative disorders**
Lukas Lorentz (DE)
- P31** **Student-led intergenerational VR fall prevention as knowledge translation in medical education: An ongoing pilot**
Oluwagbenga Dada (US)
- P32** **A clinical decision-making algorithm for screening, stratification, dosage and supervision in XR-based telerehabilitation**
Benjamin Peralta-Wieland (CA/ES)
- P33** **Usability and acceptability of home-based virtual reality physiotherapy system for people with knee osteoarthritis in the Saudi Arabian context**
Duaa Sabbagh (UK/SA)
- P34** **Assessment of cervical reaction acuity in patients with axial spondyloarthritis (axSpA) using virtual reality (VR): A cross-sectional study**
Elin Ståhlman (SE)
- P35** **Virtual reality-based cervical sensorimotor assessments demonstrate discriminative ability between individuals with chronic traumatic neck pain and asymptomatic controls**
Ulrik Röijezon (SE)
- P36** **Electroencephalography indices variation in immersive virtual reality for the upper limb**
Lydia Jilantikiri (UK/NG)
- P37** **A fatigue-responsive real-time adaptive brain-computer interface for virtual rehabilitation**
Lydia Jilantikiri (UK/NG)
- P38** **Influence of cognitive function on error augmentation training for upper limb rehabilitation after stroke**
Mindy Levin (CA)

POSTER WALKS

1. STROKE REHABILITATION POSTER WALK

- P39** Recommendations for clinically relevant serious games using extended reality
Dahlia Kairy (CA)
- P40** NeuroMate: Brain-computer interface for intelligent stroke rehabilitation
Iris Brunner (DK)
- P41** Exploring visual perspective in virtual reality based upper limb rehabilitation after stroke:
A systematic review of current evidence
Mohammad Alshehri (UK)
- P42** Feasibility of two types of real-time visual feedback in an augmented reality environment to
reduce spatial gait asymmetry in adults post-stroke
Anouk Lamontagne (CA)
- P43** Consumer VR for home stroke rehabilitation: Assessing motor impairment under sensing
constraints
Ilia Golub (PT)
- P44** Home-based digital augmented-reality rehabilitation for individuals recovering from stroke:
Protocol of a clinical trial
Daphne Geerse (NL)

2. TECHNOLOGY, AI & FUTURE DIRECTIONS POSTER WALK

- P45** Next-generation cueing: A user- and context-aware augmented-reality cueing device for
Parkinson's disease
Eva Hoogendoorn (NL)
- P46** Improving semicircular propulsion in novice wheelchair users using vision-based deep
learning and VR feedback
Salman Nourbakhsh (CA)
- P47** Artificial intelligence as a clinical decision support tool in the personalized selection of
non-immersive serious games: Lessons from the Ensemble Project
Dahlia Kairy (CA)
- P48** A novel goal-directed virtual navigation game for assessing spatial navigation ability
Xiaofeng Qiao (CN)
- P49** Billing beyond borders: Comparing reimbursement processes of digital telerehabilitation
tools across North-Western Europe
Luuk Baltissen (NL)
- P50** Virtual reality for stroke rehabilitation: Assessing feasibility, staff competency and pathway
integration
Emma Dunn (UK)

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