

Body Representation in Physical and Virtual Reality with Application to Rehabilitation

26th September to 1st October, 2010
Centro Stefano Franscini, Monte Verità, Switzerland

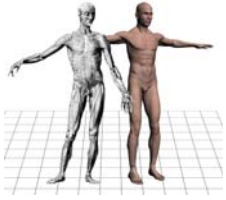


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Sunday 26th September

16:00 – 18:30	Registration
18:30 – 19:30	Welcome drinks
19:30	Dinner



Monday 27th September

- 09:00 – 9:30 Introduction
- 9:30 – 10:30 The Multisensory Body – Patrick Haggard
- 10:30 – 11:00 Break
- 11:00 – 12:00 Multisensory hypothesis of body ownership - Henrik Ehrsson
- 12:00 -12:30 Submitted Presentations:
- Now You Feel It, Now You Don't: Mechanisms of Evoked Illusory Touch (10 minutes) – K. McKenzie
 - How proprioception from your hand can help you see better; fMRI study using fMRI compatible manipulandum (20 minutes) – N. Hagura
- 12:30 – 14:00 Lunch
- 14:00 – 14:10 Welcome address: Centro Stefano Franscini – Claudia Lafranchi
- 14:10 – 15:10 The plastic self: using the senses of the body to study self-identity - Manos Tsakiris
- 15:10 – 16:10 Assessing the physiological consequences of bodily illusions – Alberto Gallace
- 16:10 – 16:30 Break
- 16:30 – 17:30 Kinesthesia and human body representation – Eiichi Naito
- 17:30 – 18:30 Submitted Presentations:
- The body (in) space: Similarities between body and peripersonal spatial representations and evidence of dorsal contributions to judging body space (20 minutes) – S. Hach
 - Filling the Gap: Dynamic and Static Representations of Occluded Full-body Actions (10 minutes) – A. Springer
 - Experimental induction of a perceived “telescoped” limb using a body swap illusion (5 minutes) – L. Schmalzl
 - The influence of attention on the recognition of a threatening situation in dynamic body expressions (5 minutes) – C. Sinke
 - fMRI-adaptation reveals selectivity for the space near the hand (5 minutes) – C. Brozzoli
 - Elemental and configural body representation in the extrastriate and fusiform body area (5 minutes) – B. Vogt
 - A neuroscience robotics/fMRI joint approach to study subjectivity (5 minutes) – S. Ionta
 - The Role of Sensory Motor Contingencies in the Body Ownership Illusion - (5 minutes) A. Maselli
- 19:00 – 20:30 Dinner
- 21:00 – 21:30 Poster



Tuesday 28th September

- 9:30 – 10:30 Bodily self-consciousness: The Limits of Agency in Walking Humans – Olaf Blanke
- 10:30 – 11:00 Break
- 11:00 – 12:00 Flesh Made Soul: Bodies in the Brain – Salvatore Maria Aglioti
- 12:00 -12:30 Submitted Presentations:
- Gait Agency and Gait Characteristics under Cognitive Load (10 minutes) – OA. Kannape
 - Visual capture and the experience of having two bodies (20 minutes) – L. Heydrich
- 12:30 – 14:00 Lunch
- 14:00 – 15:00 The Emotional Body – Beatrice de Gelder
- 15:00 – 16:00 Embodiment, morphological computation, and robot body schemas - Rolf Pfeifer and Matej Hoffmann
- 16:00 – 16:30 Break
- 16:30 – 17:30 Body Representation and Self-Consciousness: From Embodiment to Minimal Phenomenal Selfhood – Thomas Metzinger
- 17:30 – 18:30 Submitted Presentations:
- Virtual embodied intelligence: Following the embodied-intelligence approach in online virtual worlds (20 minutes) – D. Friedmann
 - Avatar ergo sum – reproducing the self-localization experiment with a full body Avatar (20 minutes) – S. Beckhaus
 - The electrophysiology of virtual-body ownership and motor imagery: A VR-EEG study (5 minutes) – N. Evans
 - Rasch-based scaling of the vividness of bodily illusions: A better explanation and further evidence for the rubber-hand illusion (5 minutes) – W. IJsselsteijn
 - Muscle vibration modulates bodily self-consciousness: The integration of proprioceptive, visual, and tactile signals (5 minutes) – E. Palluel
 - Decoding Body Ownership through Electroencephalography (5 minutes) – M. Blefari
- 19:00 – 20:30 Dinner
- 20:30 – 21:30 Conferenza pubblica: “Il cervello mistico”
Salvatore Maria Aglioti



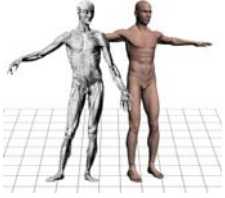


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Thursday 30th September

- 9:30 – 10:30 The mind's hand: manipulations of virtual objects – Miriam Reiner
- 10:30 – 11:00 Break
- 11:00 – 12:00 Inducing ownership of a virtual arm – Maria V. Sanchez-Vives
- 12:00 -12:30 Submitted Presentations:
- A robotic and virtual reality platform to study visuo-tactile and motor integration during hand-object interactions (10 minutes) – G. Rognini
 - Self-Avatars in Immersive Virtual Environments as a Tool to Investigate Embodied Perception (20 minutes) – B. Mohler
- 12:30 – 14:00 Lunch
- 14:00 – 15:00 Skills training in Virtual Environments: the role of the body experience – Massimo Bergamasco
- 15:00 – 16:00 Body Representation in Immersive Virtual Reality - Mel Slater
- 16:00 – 16:30 Break
- 16:30 – 17:30 Poster Session
- 17:30 – 18:30 Submitted Presentations:
- A First Person Avatar System with Haptic Feedback (20 minutes) – B. Spanlang
 - Virtual Environments in Neurological Gait Rehabilitation for Automated Control of Physical Activity and Cognitive Load (20 minutes) – A. König
 - The richness of the visual scene and the viewpoint affect sensorimotor learning in Virtual Reality (5 minutes) – JP. Bresciani
 - Patient state assessment in virtual rehabilitation using adaptive discriminant analysis (5 minutes) – D. Novak
 - Body representation: a robotic perspective (5 minutes) – M. Hoffmann
 - The illusion of owning a third arm (5 minutes) – A. Guterstam
- 19:00 – 20:30 Dinner
- 21:00 – 21:30 Poster



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Friday 1st October

- 9:30 – 10:30 MIMICS: Biocooperative Control - the Future of Rehabilitation Robotics
- Robots in Rehabilitation – current challenges and problems – A. König
 - Virtual reality, motivation and rehabilitation – J. Kastanis
 - Control of patient motivation during rehabilitation – D. Novak
 - A clinical view on control of motivation – F. Müller
- 10:30 – 11:00 Break
- 11:00 – 11:30 Mobile Eye Movement Analysis for Activity Recognition and Cognitive Awareness – Andreas Bulling
- 11:30 -12:30 Discussion: Technical and clinical visions for rehabilitation robots of the future: Will MIMICS go into clinical practice?
- 12:30 – 14:00 Lunch
- 14:00 – 15:00 Panel Discussion
- 15:00 Conclusion