

Workshops

Wednesday May 21

Workshop session W-1 (Mees Auditorium)

W-1-1 AMBULATORY MONITORING OF PHYSICAL ACTIVITY AND MOVEMENT: THE ROTTERDAM STORY (15:00-16:00)

Chair: Rita van den Berg - Emons

The Department of Rehabilitation of Erasmus University Medical Centre has activity monitoring as research focus since 1992. The central topic is the "Activity Monitor", an accelerometry-based instrument that allows objective and long-term measurement of body postures and motions during normal daily life. The AM has been used in many patient populations (e.g. heart failure, total hip/knee surgery, Cerebral Palsy, Spinal Cord Injury, amputation, meningocele, stroke, chronic pain, liver transplantation, children with Prader Willi Syndrome). Further development and validation focused on measuring arm-hand usage (CRPS-1, stroke), measuring physical (cardiovascular) strain during daily life, and on quantification of movement patterns (walking, sit-to-stand transition). In this workshop the characteristics and possibilities of the Activity Monitor will be demonstrated, illustrated by examples from own research.

W-1-2 FALL DETECTION NETWORK (16:00-17:30)

Chairs: Kamiar Aminian & Wiebren Zijlstra

Detection of falls in real life is of utmost importance for initiating immediate care services and for the further study of factors underlying these falls. Algorithms for fall detection are generally devised with simulated falls and at present few data are available that describe real life fall patterns. Recording real fall data is difficult and having a common database should be helpful for researchers working on real life fall patterns. This workshop aims to discuss issues regarding fall detection and possibilities to create a network in scientific community for archiving real fall patterns.

Thursday May 22

Workshop session W-2 (Penn Room I)

W-2-1 PAM: PAM ACTIVITY MONITOR (12:30 – 13:10)

This workshop will tell you everything about the Pam device: its fundamentals, why its technology is unique, validations, practical use in research. The Pam Activity Monitor is a small, light, accurate, versatile and affordable monitoring device that can help you perform studies with larger groups of subjects. We look forward meeting you in our interactive workshop! (Pam is called Kam in the US).

www.pam.com/us/product/ and www.mykamunity.com

W-2-2 ORTHOCARE: THE STEPWATCH ACTIVITY MONITOR (13:15 – 13:55)

This workshop will introduce you to the StepWatch Activity Monitor (SAM), a powerful, unobtrusive and easy-to-use instrument that records the number of strides taken each minute for extended periods of time with greater than 98% accuracy regardless of gait style, gait speed, and body composition. The SAM software analyzes levels and patterns of activity, providing insight into the functional dimensions of ambulatory capacity and behavior. The SAM is used extensively in research and clinical applications worldwide. A bibliography of peer-reviewed literature and a summary of published accuracy results will be available.

Friday May 23

Workshop session W-3 (Penn Room I)

W-3-1 MCROBERTS: GAIT VARIABILITY AND RISK OF FALLING (12:30 – 13:10)

The aim of the workshop is to inform you about the use of accelerometry based methods to analyse gait in order to estimate risk of falling. The topics are:

- Clinical use in the Fall Clinic (Dr. Jos van Campen)
- State of the Art (Dr. Jeff Hausdorff)
- Reproducibility of gait variability in frail elderly (Prof. Dr. Ivan Bautmans)
- Practical demonstration of the DynaPort (McRoberts)

W-3-2 AMBULATORY MONITORING OF PHYSICAL ACTIVITY AND MOVEMENT: THE ROTTERDAM STORY (13:15 – 13:55)

See W-1-1