



DIPARTIMENTO DI INGEGNERIA DELL'ENERGIA ELETTRICA
E DELL'INFORMAZIONE "GUGLIELMO MARCONI"

23th MobEx meeting Bologna - January 17th-18th, 2020

Venue: Town hall of Bologna, Palazzo D'Accursio, Sala Tassinari
Piazza Maggiore 6, Bologna

FRIDAY, JANUARY 17

12:00 – 12:45 **Registration and Buffet**

12:45 **Welcome messages**

Lorenzo Chiari, University of Bologna

Giuliano Barigazzi, City Councilor, Municipality of Bologna

Session I. Reducing Fall Risk – Chair: *Chris Todd, University of Manchester, UK*

13:00 **Arnhild Jenssen Nygard**, NTNU, Trondheim, Norway

Evaluation of Strong & Steady – low threshold exercise groups for preventing falls and functional decline among community-dwelling older adults

13:30 **Helen Hawley-Hague**, University of Manchester, UK

Can smartphone TechnoLOGy be used to support an EffecTive Home ExeRcise intervention to prevent falls amongst community dwelling older adults? Early stage preliminary findings

14:00 **Lisa McGarrigle**, University of Manchester, UK

Population-based interventions for preventing falls and fall-related injury in older people: a Cochrane protocol

14:30 **Fabio La Porta and Serena Caselli**, IRCCS Istituto Scienze Neurologiche Bologna, Italy

A multicomponent and multifactorial intervention for fall prevention in a mixed population of community-dwelling elderly is not superior to the usual care at reducing fall rates at twelve months. Results and lessons learned from the PRE.C.I.S.A. study

15:00 – 15:30 **Panic session (*5-minute pitch*)**. Chair: **Sabato Mellone, University of Bologna, IT**

- **Elisabeth Boulton**, University of Manchester, UK
Raising the bar on strength and balance: joined up approaches to community-based provision
- **Katharine Fisher**, University of Manchester, UK
Feasibility, usability and acceptability of a gamified strength and balance training and healthy ageing platform (Keep-On-Keep-Up) for older adults living in the community: pre-post study.
- **Lisa McGarrigle**, University of Manchester, UK
Map the Apps: a scoping review of digital approaches to support the engagement of older adults in strength and balance exercises
- **Yu Imaoka**, ETH Zürich, Switzerland
Development of a body balance assessment system with virtual reality technology integrated for dementia; construct validity testing in healthy adults
- **Luca Reggi**, University of Bologna, Italy
Measurement of walking speed and step length using a low-cost GPS-RTK system



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15:30 – 16:00 **Coffee Break**

16:00 – 17:00 **Mobilise-D** Technical aspects – Chair: *Claudia Mazzà, University of Sheffield, UK*

- **Claudia Mazzà**, University of Sheffield, UK
Wearable sensors: the challenge of real world validation
- **Andrea Cereatti**, University of Sassari, Italy
Multi-sensor integration for ground truth gait data in real-world conditions.
- **Fabio Ciravegna**, University of Sheffield, UK
Detection of Contextual factors in human mobility tracking

Session II. Assessment Methods – Chair: *Kamiar Aminian, EPFL Lausanne, CH*

17:00 **Gaelle Prigent**, EPFL Lausanne, Switzerland

Influence of acute fatigue on biomechanical and physiological parameters - a systematic review

17:30 **Manuela Adcock**, ETH Zürich, Switzerland

Dual load model – A framework for the effects of combined physical-cognitive training on neuroplasticity in older adults

18:00 **Sebastian Krumpoch**, FAU, Erlangen, Germany

The Effect of Different Test Protocol and Walking Distance on Gait Speed

18:30 **End of Day 1**

20:30 **Social Dinner – ‘Osteria 051 San Gervasio’ Via S. Gervasio, 1/e, 40121 Bologna BO – Google Maps: <https://goo.gl/maps/m6ftXTC5MSWMQYGBA>**

SATURDAY, JANUARY 18

Session III. Intervention Programmes – Chair: *Marlene Sandlund, Umeå University, SE*

09:00 **Erik Rosendahl**, Umeå University, Sweden

Development and Feasibility of a Regulated, Supramaximal High-Intensity Training Program Adapted for Older Individuals

09:30 **Sasiporn Ounjaichon**, University of Manchester, UK

Developing the TLiFE Programme (the Adapted Lifestyle-integrated Functional Exercise Programme in Thai Context): A Novel Approach to Fall Prevention among Older Adults in Thailand

10:00 **Laura Bragonzoni and Giuseppe Barone**, University of Bologna, Italy

Physical Activity: the tool to improve the quality of life in osteoporosis people - ACTLIFE

10:30 **Martino Belvederi Murri**, University of Ferrara, Italy

Late life Depression, mobility and exercise: from measurements to interventions

11:00 – 11:30 **Coffee Break**



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Session IV. Observational Studies – Chair: *Jorunn L. Helbostad, NTNU Trondheim, NO*

- 11:30** **Karen Sverdrup**, University of Oslo, Norway
Trajectories of Physical Performance in Nursing Home Residents with Dementia
- 12:00** **Karoline Blix Grønvik**, NTNU, Trondheim, Norway
How physically active are the older adults in the Trondheim 70+ study?
- 12:30** **Liss Marita Solbakken**, Oslo Metropolitan University, Norway
TracStroke – Transitional care from stroke unit to municipal follow-up
- 13:00** **Bard Bogen**, HVL, Bergen, Norway
Hearing loss, balance and mobility in older adults

13:30 – 14:30 Lunch

14:30 – 15:30  **Clinical aspects– Chair: *Clemens Becker, RBK Stuttgart, DE***

- **Clemens Becker**, Robert Bosch Krankenhaus, Stuttgart, Germany
Clinical validation of generic digital mobility parameters for regulatory purposes – a challenge
- **Jochen Klenk**, Robert Bosch Krankenhaus, Stuttgart, Germany
Sit-to-stand transfer measures as potential digital mobility outcomes
- **Marco Viceconti**, University of Bologna, Italy
Using wearable sensors to quantify mobility in drug trials: The long and winding road to regulatory approval

Session V. Real World Data - tools and methods – Chair: *Wiebren Zijlstra, DSHS Köln, DE*

- 15:30** **Trumpf Rieke**, DSHS, Köln, Germany
Quantifying older adults' habitual physical activity and sedentary behavior – Differences between two simultaneously body-worn motion sensors and a self-estimation
- 16:00** **Eleftheria Giannouli**, University of Basel, Switzerland
MOBITEC-GP - Mobility Assessment with Modern Technology in Older Patients' Real-Life by the General Practitioner
- 16:30** **Jonas Sandlund**, Umeå University, Sweden
Validation of MyBalance: a self-test for balance and functional leg strength
- 17:00** **Tim Fleiner**, DSHS, Köln, Germany
Quantifying daytime aspects of physical activity in older adults – towards a chronotype-analysis with body-worn sensors

17:30 – 18:00 Closing Session

- **Rolf Moe-Nilssen**, University of Bergen, Norway
Self-assessment of outdoor walking
- **Chris Todd**, University of Manchester, UK

SUNDAY, JANUARY 19

10:00 onwards Trip and playful activity at FICO: <https://www.eatalyworld.it/en/>

It is not only about food, there are indoor soccer and beach volley courts too. Keep comfortable clothes and shoes at hand ☺