



Newsletter

October, 2019

www.ismpb.org

Message from the President

Although this is normally a quiet period for a scientific society, post-conference, I feel for us it is the continuation of our journey. We are making progress in building on and expanding our activities.

Our first ISMPB workshop is now open for abstract submission. This is a new milestone for the Society and is an important step in expanding our activities in a new direction, from the biennial ICAMPAM conference and the publication of our journal. This workshop "The physical behaviour 24/7 approach – integrating occupational and public health perspectives", over a day-and-a-half (14th - 15th May) has a full programme of invited speakers, workshop activities, platform

sessions and poster presentations. This also features net-working and social opportunities. This workshop is in close proximity, both in time and location, to the International Conference on Diet & Activity Methods (ICDAM) meeting (17-20 May, The Netherlands). This will allow participants of both meetings to consider an additional scientific trip in the region.

ICAMPAM 2021 planning is well underway and as well as having secured the venue we have started the process of forming the Scientific Committee and mapping out the conference programme. In addition to the usual popular ICAMPAM features, there will be a few new twists. More of this later!

The Board is now looking at the membership of its committees and the work undertaken by them. We are looking for new members and

there is a call for committee members at the end of this newsletter. I hope you might give this some consideration - for those who have joined they have found it a rewarding and enjoyable experience.

I hope you all have a productive and interesting end of year, and I look forward to us continuing to engage with each other in developing the diverse activities of our research community.

Malcolm Granat



SOCIAL MEDIA

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WEBSITE

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<http://www.ismpb.org/>

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Member Profile

Martina Mancini

Everybody has a unique career path to their current destination. Can you share some of your stops along the way?

During my Master in Bioengineering at the Alma Mater Studiorum-University of Bologna, I attended a seminar on instrumented assessment of balance in people with movements disorders which inspired me to do an internship and thesis on characterizing postural instabilities in people with Parkinson's disease (PD) with Prof Lorenzo Chiari and Prof Angelo Cappello. Although I was fascinated in quantitatively measuring Freezing of Gait (FoG), a sudden block in ambulation, in the laboratory, at that time, unfortunately, we did not observe any FoG in the population tested. However, I realized that I wanted to pursue a career in research, and my PhD was largely devoted to the development and validation of novel protocol to measure postural instability in people with PD using wearable technology. After my PhD I moved from Italy to the United States to learn more about motor control and pathophysiology of PD, and I was fortunate to be able to work in Prof Fay Horak's laboratory where I was introduced to Dr. John Nutt. During my post-doc, among other studies, we were able to quantitatively measure FoG in the laboratory with wearable sensors and validate those measures with the clinical judgment. During that time I realized that quantitative measures of movement disorders could be of profound help for clinical practice. Now, I'm Assistant Professor of Neurology at the Oregon Health & Science University and I co-Direct the Balance Disorders Laboratory with Prof. Horak and Prof. King. My research focuses on the use of technologies to characterize and treat mobility impairments, such as FoG, in people with PD. My team is also investigating the neural correlates of mobility changes with technology-based approach for rehabilitation.

Tell us about a current project you are working on.

One of the projects I'm working on, which is particularly related to my career path, is the characterization and treatment of Freezing of Gait during real life in people with PD. We are investigating the impact of FoG, objectively measured with inertial sensors, on mobility function during seven days of community-living monitoring in people with PD. We are also validating objective measures of FoG obtained with wearable sensors with clinical judgment in the home setting. Ultimately, we will be testing whether a closed-loop based system could be of help in overcoming FoG during daily life.



What do you think are the most important research advancements in this area?

Preventing and treating FoG is a major unmet need for patients with Parkinson's disease. Fortunately, research into rehabilitation, medical, and surgical therapies that might specifically help FoG is being performed at centers around the world. Innovative therapies, such as external anodal electrical stimulation of the motor cortex of the brain, deep brain stimulation of new targets, and spinal cord stimulation, are exciting avenues of investigation that might eventually help patients with FoG. In addition, the development of closed-loop feedback, to be used in real life could be of help in overcoming symptoms during daily life.

Have you participated in any ISMBP events? If so, can you please describe your experiences?

Yes! I have been to four out of six ICAMPAM conferences, and I won a Poster Award at the very first conference in 2008. It is great to attend the conference, meet new people, and particularly, catch-up on research findings with colleagues.

In the future, what would you like to see from the ISMPB?

I think it would be very helpful to see published general guidelines on definitions and quantification of free-living physical behaviors, such as mobility, using a wearable device.

Martina Mancini, PhD
mancinim@ohsu.edu

Journal for the Measurement of Physical Behaviour

Volume 2, Issue 3!!



Original Research

- **Using Accelerometers to Identify Regular Activity Breaks.** Meredith C. Peddie, Matthew Reeves, Millie K. Keown, Tracy L. Perry and C. Murray Skeaff
- **Providing a Basis for Harmonization of Accelerometer-Assessed Physical Activity Outcomes Across Epidemiological Datasets.** Alex V. Rowlands, Tatiana Plekhanova, Tom Yates, Evgeny M. Mirkes, Melanie Davies, Kamlesh Khunti and Charlotte L. Edwardson
- **Accuracy of Physical Activity Monitors for Steps and Calorie Measurement During Pregnancy Walking.** Alexander H.K. Montoye, Jordana Dahmen, Nigel Campbell and Christopher P. Connolly
- **Reliability and Validity of the Cancer Prevention Study-3 Physical Activity Survey Items.** Erika Rees-Punia, Charles E. Matthews, Ellen M. Evans, Sarah K. Keadle, Rebecca L. Anderson, Jennifer L. Gay, Michael D. Schmidt, Susan M. Gapstur and Alpa V. Patel
- **Accuracy of Heart Rate and Energy Expenditure Estimations of Wrist-Worn and Arm-Worn Apple Watches.** Kayla J. Nuss, Joseph L. Sanford, Lucas J. Archambault, Ethan J. Schlemer, Sophie Blake, Jimikaye Beck Courtney, Nicholas A. Hulett and Kaigang Li
- **Research Tracker 6 Accelerometer Calibration and Validation in Comparison to GENEActiv, ActiGraph, and Gas Analysis in Young Adults.** Emma L. J. Eyre, Jason Tallis, Susie Wilson, Lee Wilde, Liam Akhurst, Rildo Wanderleys and Michael J. Duncan

Methodology

- **GGIR: A Research Community-Driven Open Source R Package for Generating Physical Activity and Sleep Outcomes From Multi-Day Raw Accelerometer Data.** Jairo H. Migueles, Alex V. Rowlands, Florian Huber, Séverine Sabia and Vincent T. van Hees

Brief Reports

- **A Methodological Approach to Retaining Accelerometers and Associated Data in Community-Based Studies.** Gregory Knell, Deborah Salvo, Kerem Shuval, Casey Durand, Harold W. Kohl III and Kelley P. Gabriel
- **Time Drift Considerations When Using GPS and Accelerometers.** Chelsea Steel, Carolina Bejarano and Jordan A. Carlson

Members can access **JMPB** at <https://journals.humankinetics.com/loi/jmpb>. We invite you to submit manuscripts for consideration for publication. Details about the journal and instructions for submitting papers can be found at https://mc.manuscriptcentral.com/hk_jmpb. If you have ideas for special issues or a few papers on specific topics of interest from a seminar, workshop, symposium etc., please prepare a short proposal that includes name of guest editor, description of the general content of the special issue, authors and working paper titles and timeline. Submit these proposals to me at psf@kin.umass.edu. Our journal operations committee will review these special issue proposals for consideration for publication.

<https://journals.humankinetics.com/page/authors/jmpb>

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ICAMPAM 2021 COMMITTEES

Local Host Chairs:

Ed Melanson, *University of Colorado Anschutz Medical Campus*
Kate Lyden, *KAL Research and Consulting*

Scientific Program Chair:

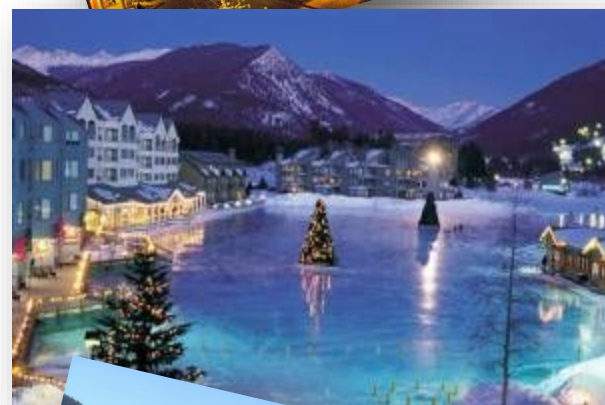
Jeff Hausdorff, *Tel-Aviv Sourasky Medical Center*

Local Organizing Committee:

Seth Creasy, *University of Colorado Anschutz Medical Campus*
Danielle Ostendorf, *University of Colorado Anschutz Med Campus*
Jen Blankenship, *University of Colorado Anschutz Medical Campus*
Ann Caldwell, *University of Colorado Anschutz Medical Campus*

Key Dates

October	26	2020	Oral & Poster Abstracts call open
October	26	2020	Symposia Submissions Open
October	26	2020	Pre-Conference Workshop Open
December	11	2020	Symposia Submission Close
December	21	2020	Pre-Conference Workshop Close
January	26	2021	Registration open
January	26	2021	Poster Abstracts deadline
June	16-20	2021	ICAMPAM Conference



Click for updates: <https://ismpb.org/icampam/>

ISMPB Workshop 2020

“The physical behavior 24/7 approach - integrating occupational and public health perspectives”

**MAY 14-15TH 2020
STOCKHOLM, SWEDEN**

CO-CHAIRS

- **Maria Hagströmer**, Sophiahemmet University
- **Andreas Holtermann**, National Research Centre for the Working Environment
- **Örjan Ekblom**, The Swedish School of Sport and Health Sciences (GIH)
- **Svend Erik Mathiassen**, Centre for Musculoskeletal Research, University of Gävle

KEY DATES

- **Nov 14, 2019:** Registration opens
- **Nov 21, 2019:** Poster Abstracts deadline
- **Feb 21, 2020:** Early Bird rate ends
- **April 14, 2020:** Regular rate ends
- **May 14-15, 2020:** ISMPB Workshop

ABSTRACT SUBMISSION THEMES

1. Study design
2. New methods
3. Sensors
4. Occupational PA
5. Public health
6. Special populations
7. Interventions

INVITED SPEAKERS

- **Andreas Holtermann**, University of Southern Denmark
- **Nidhi Gupta**, National Research Centre for the Working Environment
- **Charlotte Lund Rasmussen**, National Research Centre for the Working Environment
- **Svend Erik Mathiesen**, Centre for Musculoskeletal Research, University of Gävle
- **David Hallman**, Centre for Musculoskeletal Research, University of Gävle
- **Paul Jarle Mork**, Norwegian University of Science and Technology
- **Örjan Ekblom**, The Swedish School of Sport and Health Sciences

Abstract submission will close on November 21st, 2019. Registration for the ISMPB Workshop 2020 will open on November 14th, 2019.





INTERNATIONAL CONFERENCE ON DIET & ACTIVITY METHODS

ICDAM 2020

[Click here for Updates!](#)

ICDAM 2020 will be held at the ReeHorst Hotel and Congrescentrum (Bennekomseweg 24, 6717 LM, Ede, Netherlands) in Ede. Ede is situated at the edge of the Veluwe region, a beautiful forest area that offers a large variety of nature and cultural activities..According to a recent survey, inhabitants of Ede are the happiest in the Netherlands.

The ReeHorst is located within walking distance of the Ede-Wageningen train station. The Ede city centre can be reached by a 10 minute bike ride from the venue (bicycles can be borrowed or rented at many hotels). Find out about getting here and around.

The nearby city of Wageningen, easily accessible by bus, hosts a variety of cafés and restaurants. The city has an international feel due to the many (international) students living there. The city of Utrecht, about 25 minutes away by train, offers numerous hotels, restaurants, shopping, and cultural activities.

Keynote Speakers:

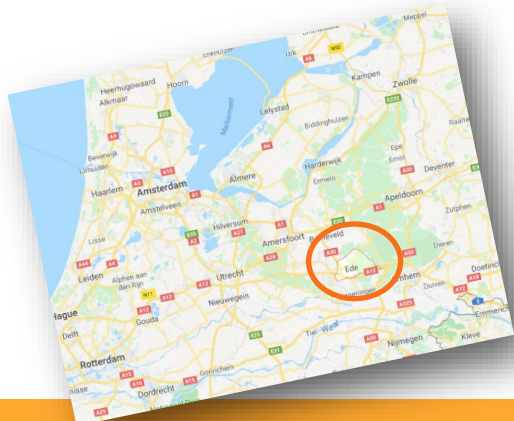
- Dr. Tim Olds, University of South Australia
- Dr. Jennifer Coates, Tufts University
- Dr. Job Godino, UC San Diego

Wija van Staveren Memorial Lecture:

- Professor Lisette de Groot
- Professor Edith Feskens

Registration Information:

- Early Bird (until 1/31/2020)
 - Regular: € 350 - 475
 - Students: € 350




..... *save the date*

17-20 MAY 2020

Submission dates:

Pre-conference workshops: Sept. 10, 2019
 Symposia: Oct. 1, 2019
 Abstracts: Nov. 15, 2019
 Late-breaking abstracts: Jan. 31, 2020

Wageningen/Ede, Netherlands
www.icdamportal.org

Physical Activity Measurement Seminar 2020

University of Cambridge School of Clinical Medicine

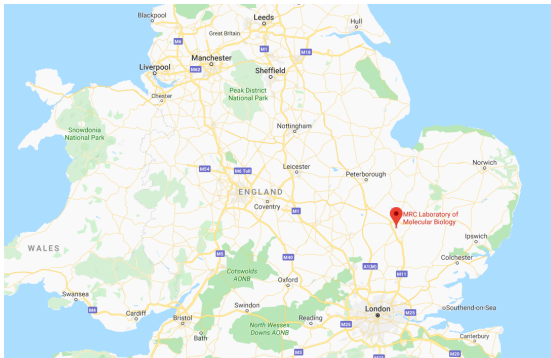
Cambridge, UK
September, 2020

In September 2020 (specific dates to be determined soon), the MRC Epidemiology Unit will be holding its 10th seminar encouraging those who are interested or involved in the measurement of physical activity in the epidemiological setting to learn about the science and practical aspects of current techniques used in this field of research.

The primary objective of the seminar is to promote high quality field work in epidemiological studies through understanding of the underlying measurement principles and methods of data analysis.



Planning for this seminar is currently underway!



**9th Physical Activity
Measurement Seminar 2018**



If you would like to be added to the mailing list to be notified once further information is available please e-mail pa-seminar@mrc-epid.cam.ac.uk

NCCOR Releases New Measures Registry Learning Modules

Individual Physical Activity Learning Module

The Individual Physical Activity module series addresses considerations that influence decisions about physical activity assessments. The series covers why it is important to distinguish between measure and assess, calculating energy costs of physical activities for adults and youth, and activity monitor selection and use. The series includes the following four modules:



- Module 1: Introduction to Individual Physical Activity series
- Module 2: Processing, scoring, interpreting physical activity data
- Module 3: Selecting and using activity monitors
- Module 4: Case Study: Identifying predisposing factors for active commuting in urban/suburban elementary school children

SUGGESTED CITATIONS

1. Measures Registry. National Collaborative on Childhood Obesity Research. <https://www.nccor.org/nccor-tools/measures/>
2. McKinnon, RA, et al. *National Collaborative on Childhood Obesity Research Catalogue of Surveillance Systems and Measures Registry: New tools to spur innovation and increase productivity in childhood obesity research*. Am J Prev Med. 2012;42(4):433-5.

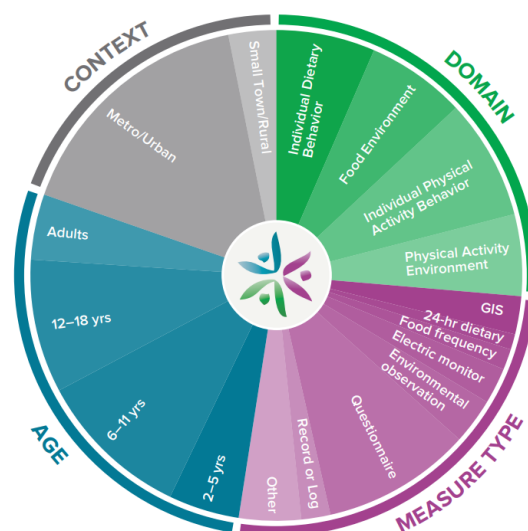


MEASURES REGISTRY LEARNING MODULES



The Learning Modules are a great tool for users who are newer to research and evaluation in diet and physical activity, or individuals who need a refresher on key concepts.

The Registry allows users to search and filter by:

- Domain
- Measures Type
- Age
- Context







What's new in the world of measurement? Look what our members have been up to.

 International Journal of Environmental Research and Public Health 

Article

Calibration and Validation of the Youth Activity Profile as a Physical Activity and Sedentary Behaviour Surveillance Tool for English Youth

Stuart J. Fairclough ^{1,*}, Danielle L. Christian ², Pedro F. Saint-Maurice ³, Paul R. Hibbing ⁴, Robert J. Noonan ⁵, Greg J. Welk ⁶, Philip M. Dixon ⁷ and Lynne M. Boddy ⁸

 International Journal of Environmental Research and Public Health 


Article

Designing Activating Schoolyards: Seen from the Girls' Viewpoint

Charlotte S. Pawlowski ^{1,*}, Jenny Veitch ², Henriette B. Andersen ¹ and Nicola D. Ridgers ²

Medical Engineering and Physics xxx (xxxx) xxx

Contents lists available at ScienceDirect

 Medical Engineering and Physics

journal homepage: www.elsevier.com/locate/medengphy

Concurrent agreement between ActiGraph® and activPAL® in measuring moderate to vigorous intensity physical activity for adults

Long F.R. Lee, Philippa M. Dall*



www.nature.com/scientificdata

SCIENTIFIC DATA

OPEN

DATA DESCRIPTOR

Upper limb activity of twenty myoelectric prosthesis users and twenty healthy anatomically intact adults

Alix Chadwell , Laurence Kenney , Malcolm Granat, Sibylle Thies, Adam Galpin & John Head

Received: 5 April 2019
Accepted: 21 August 2019
Published online: 10 October 2019

Statistics Canada, Catalogue no. 82-003-X • Health Reports, Vol. 30, no. 10, pp. 3-13, October 2019

Trends in physical fitness among Canadian children and youth



by Rachel C. Colley, Janine Clarke, Caroline Y. Doyon, Ian Janssen, Justin J. Lang, Brian W. Timmons, and Mark S. Tremblay


Physiol. Meas. 40 (2019) 095008 (10pp)

Physiological Measurement

PAPER

Effect of sampling rate on acceleration and counts of hip- and wrist-worn ActiGraph accelerometers in children

Kimberly A. Cleverley , Karla A. Pfeiffer ¹, Kelly A. Mackintosh ², Melitta A. McNarry ³, Jan Brand ³, Daniel Arvidsson ² and Alexander H.K. Montoye ²

 Institute of Physics and Engineering in Medicine

<https://doi.org/10.1088/1361-6579/ab444b>

ISMPB Job Board

ISMPB now has a **Job board** on its website.

This is the ideal place to advertise job vacancies and research opportunities related to objective measurement and quantification of free-living physical behavior.

Access to the Job Board is free to ISMPB members.

For non-members the prices are as follows:

- \$150 for one job advertisement
- \$100 + VAT for each subsequent job.

<https://ismpb.org/job-board/>



Call for Committee Members!!

ICAMPAM SCIENTIFIC COMMITTEE

Provides support, input and direction on the scientific content for the Society's Conference. This will include determining the content of the conference, identifying Keynote speakers, selecting symposia and workshops, reviewing abstracts and engaging with publicising the meeting. Full Terms of Reference for the SC are defined in a separate document. The Chair of the SC is a full Board member and will also be the co-chair of the conference.

COMMUNICATION AND SOCIAL MEDIA COMMITTEE

Responsible for designing and implementing the communication strategy for the ISMPB. Activities of this committee include but are not limited to: three-monthly newsletter, update of social media and website, organization of activities targeting Early Career Researchers.

JOURNAL COMMITTEE

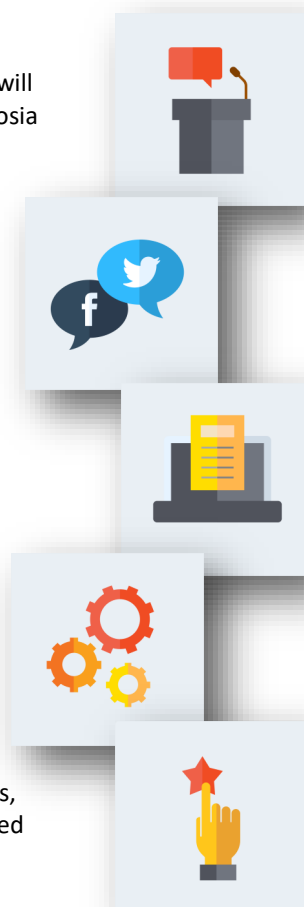
Primary responsibility will be to ensure that the Society can support the Journal efforts to reach a wider audience.

BETWEEN-CONFERENCE ACTIVITIES COMMITTEE

Define and implement a strategy between-year activities. These activities are to engage our existing members and to enhance our ability to attract new members, ranging from supporting local conferences and meetings to providing incentives and resources for our ECRs.

NOMINATIONS COMMITTEE

Secure and present a slate of qualified, acceptable candidates for the elections of Board Members, and as required, membership within other ISMPB committees. When required, the Board approved slate will then be presented to the general membership for a vote.



Interested? <https://ismpb.org/committees/>

Become a member of ISMPB

Who can become a member?

Membership in ISMPB is open to everyone from around the world involved in the measurement of free-living physical behaviour.

Membership fees support the mission of ISMPB in creating a vibrant community bringing together people from a wide variety of backgrounds and expertise, including researchers, clinicians, therapists, signal analysts, computational scientists and commercial companies.

Link <http://www.ismpb.org/membership/>

Member Benefits

- ⇒ Register for Society Meetings at reduced registration rates
- ⇒ Have free access to the society journal : JMPB
- ⇒ Support a new, young and independent Society
- ⇒ Become connected with leading experts in the field
- ⇒ Opportunity to get involved as an ISMPB Committee member
- ⇒ Vote in annual elections for the Board of Directors
- ⇒ Stand for election to the Board of Directors
- ⇒ Eligible for student awards at the Society Meetings (best oral and best poster)
- ⇒ Access to online resources and conference proceedings
- ⇒ Opportunity to post news and information on related events



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