

CURRICULUM VITAE
The Johns Hopkins University School of Medicine

05/12/2021

Jacek K. Urbanek, PhD

DEMOGRAPHIC AND PERSONAL INFORMATION**Current Appointments****University**

11/30/2017 – present Assistant professor of medicine, Johns Hopkins University School of Medicine, Department of Medicine, Division of Geriatric Medicine and Gerontology

Hospital

Not applicable

Other

01/02/2021 – present Director of the Accelerometry Resource Core at the Center on Aging and Health
Johns Hopkins University

07/01/2018 – present Joint-appointee at the Department of Biostatistics, Johns Hopkins
Bloomberg School of Public Health

02/19/2018 - present Core faculty at the Center on Aging and Health, Johns Hopkins University

Personal Data

Business address	2024 E. Monument Street Suite 2-700 Baltimore, MD 21205
Division of	Geriatric Medicine and Gerontology
Department of	Medicine
Building and room	2024 E. Monument, Room 2-728
Tel	410-502-3410
Fax	410-614-9625
E-mail	jurbane2@jhu.edu

Education and Training**Undergraduate**

2009 MSc - University of Science and Technology – Krakow, Poland

Doctoral/graduate

2013 PhD - University of Science and Technology – Krakow, Poland

Postdoctoral

2014-2017 Fellowship, Department of Biostatistics, Johns Hopkins Bloomberg School of Public Health,
Baltimore, MD

Professional Experience

2017-present Assistant professor of medicine, Johns Hopkins University School of Medicine, Department
of Medicine,

Division of Geriatric Medicine and Gerontology

2013-2014 Visiting Adjunct Faculty Member, Department of Biostatistics, Richard M. Fairbanks School
of Public Health, Indiana University, Indianapolis, IN

2008-2013 Diagnostic engineer, EC Systems Ltd. Krakow, Poland

PUBLICATIONS**Original Research [OR]**

1. Barszcz T, **Urbanek** J, Schmidt B. Pomiar mocy mechanicznej maszyn elektrycznych poprzez pomiar kąta

- skręcenia wału. *Maszyny Elektryczne: zeszyty problemowe*. 2009;(82):233-237.
2. Barszcz T, **Urbanek J**. Dynamiczny pomiar mocy mechanicznej maszyn wirnikowych. *Pomiary Automatyka Kontrola*. 2010;56:483-486.
 3. Barszcz T, **Urbanek J**, Szumilas Ł. Selection of efficient monitoring methods for machinery generating high vibration signal disturbance. *Diagnostyka*. Published online 2010:55-58.
 4. Strączkiewicz M, **Urbanek J**, Barszcz T. Three-dimensional representation of diagnostic features in application to wind turbines. *Diagnostyka*. Published online 2012:9-16.
 5. **Urbanek J**, Barszcz T, Uhl T, Staszewski WJ, Beck SBM, Schmidt B. Leak detection in gas pipelines using wavelet-based filtering. *Structural Health Monitoring*. 2012;11(4):405-412.
 6. **Urbanek J**, Antoni J, Barszcz T. Detection of signal component modulations using modulation intensity distribution. *Mechanical Systems and Signal Processing*. 2012;28:399-413.
 7. **Urbanek J**, Barszcz T, Uhl T. Comparison of advanced signal-processing methods for roller bearing faults detection. *Metrology and Measurement Systems*. 2012;19(4):715-726.
 8. **Urbanek J**, Barszcz T, Zimroz R, Antoni J. Application of averaged instantaneous power spectrum for diagnostics of machinery operating under non-stationary operational conditions. *Measurement*. 2012;45(7):1782-1791.
 9. Zimroz R, Bartelmus W, Barszcz T, **Urbanek J**. Wind turbine main bearing diagnosis-A proposal of data processing and decision making procedure under non stationary load condition. In: *Key Engineering Materials*. Vol 518. Trans Tech Publications Ltd; 2012:437-444.
 10. Barszcz T, Zimroz R, **Urbanek J**, Jabłoński A, Bartelmus W. Bearings fault detection in gas compressor in presence of high level of non-Gaussian impulsive noise. In: *Key Engineering Materials*. Vol 569. Trans Tech Publications Ltd; 2013:473-480.
 11. **Urbanek J**, Barszcz T, Antoni J. A two-step procedure for estimation of instantaneous rotational speed with large fluctuations. *Mechanical Systems and Signal Processing*. 2013;38(1):96-102.
 12. **Urbanek J**, Barszcz T, Antoni J. Time–frequency approach to extraction of selected second-order cyclostationary vibration components for varying operational conditions. *Measurement*. 2013;46(4):1454-1463.
 13. **Urbanek J**, Barszcz T, Antoni J. Integrated modulation intensity distribution as a practical tool for condition monitoring. *Applied acoustics*. 2014;77:184-194.
 14. Zimroz R, Bartelmus W, Barszcz T, **Urbanek J**. Diagnostics of bearings in presence of strong operating conditions non-stationarity—A procedure of load-dependent features processing with application to wind turbine bearings. *Mechanical systems and signal processing*. 2014;46(1):16-27.
 15. Strączkiewicz M, **Urbanek JK**, Fadel WF, Crainiceanu CM, Harezlak J. Automatic car driving detection using raw accelerometry data. *Physiological Measurement*. 2016;37(10):1757.
 16. **Urbanek J**, Barszcz T, Jablonski A. Application of angular–temporal spectrum to exploratory analysis of generalized angular–temporal deterministic signals. *Applied Acoustics*. 2016;109:27-36.
 17. Di J, Leroux A, **Urbanek J**, Varadhan R, Spira AP, Schrack J, Zipunnikov V. Patterns of sedentary and active time accumulation are associated with mortality in US adults: The NHANES study. *bioRxiv*. Published online 2017:182337.
 18. **Urbanek J**, Barszcz T, Strączkiewicz M, Jablonski A. Normalization of vibration signals generated under highly varying speed and load with application to signal separation. *Mechanical Systems and Signal Processing*. 2017;82:13-31.
 19. **Urbanek JK**, Harezlak J, Glynn NW, Harris T, Crainiceanu C, Zipunnikov V. Stride variability measures derived from wrist-and hip-worn accelerometers. *Gait & posture*. 2017;52:217-223.
 20. **Urbanek JK**, Zipunnikov V, Harris T, Crainiceanu C, Harezlak J, Glynn NW. Validation of gait characteristics extracted from raw accelerometry during walking against measures of physical function, mobility, fatigability, and fitness. *The Journals of Gerontology: Series A*. Published online 2017.
 21. Varma VR, Dey D, Leroux A, Di J, **Urbanek J**, Xiao L, Zipunnikov V. Re-evaluating the effect of age on physical activity over the lifespan. *Preventive medicine*. 2017;101:102-108.
 22. Strączkiewicz M, **Urbanek J**, Harezlak J. RADVis: A Software Tool for the Visual Investigation of Raw Accelerometry Data. *Journal for the Measurement of Physical Behaviour*. 2018;1(4):191-196.
 23. **Urbanek JK**, Spira AP, Di J, Leroux A, Crainiceanu C, Zipunnikov V. Epidemiology of objectively measured bedtime and chronotype in US adolescents and adults: NHANES 2003–2006. *Chronobiology*

- international*. 2018;35(3):416-434.
24. **Urbanek JK**, Zipunnikov V, Harris T, Fadel W, Glynn N, Koster A, Caserotti P, Crainiceanu C, Harezlak J. Prediction of sustained harmonic walking in the free-living environment using raw accelerometry data. *Physiological measurement*. 2018;39(2):02NT02.
 25. Adelnia F, **Urbanek J**, Osawa Y, Shardell M, Brennan NA, Fishbein KW, Spencer RG, Simonsick EM, Schrack JA, Ferrucci L. Moderate-to-Vigorous Physical Activity Is Associated With Higher Muscle Oxidative Capacity in Older Adults. *Journal of the American Geriatrics Society*. 2019;67(8):1695-1699.
 26. Di J, Spira A, Bai J, **Urbanek J**, Leroux A, Wu M, Resnick S, Simonsick E, Ferrucci L, Schrack J. Joint and individual representation of domains of physical activity, sleep, and circadian rhythmicity. *Statistics in biosciences*. 2019;11(2):371-402.
 27. Fadel WF, **Urbanek JK**, Albertson SR, Li X, Chomistek AK, Harezlak J. Differentiating Between Walking and Stair Climbing Using Raw Accelerometry Data. *Statistics in biosciences*. 2019;11(2):334-354.
 28. Leroux A, Di J, Smirnova E, Mcguffey EJ, Cao Q, Bayatmokhtari E, Tabacu L, Zipunnikov V, **Urbanek JK**, Crainiceanu C. Organizing and analyzing the activity data in NHANES. *Statistics in biosciences*. 2019;11(2):262-287.
 29. Martinez-Amezcuca P, Simonsick EM, Wanigatunga AA, **Urbanek JK**, Chiles Shaffer N, Ferrucci L, Schrack JA. Association Between Adiposity and Perceived Physical Fatigability in Mid-to Late Life. *Obesity*. 2019;27(7):1177-1183.
 30. Qiao Y, Martinez-Amezcuca P, Wanigatunga AA, **Urbanek JK**, Simonsick EM, Ferrucci L, Schrack JA. Association Between Cardiovascular Risk and Perceived Fatigability in Mid-to-Late Life. *Journal of the American Heart Association*. 2019;8(16):e013049.
 31. Wanigatunga AA, Di J, Zipunnikov V, **Urbanek JK**, Kuo P-L, Simonsick EM, Ferrucci L, Schrack JA. Association of total daily physical activity and fragmented physical activity with mortality in older adults. *JAMA network open*. 2019;2(10):e1912352-e1912352.
 32. Alfini AJ, Schrack JA, **Urbanek JK**, Wanigatunga AA, Wanigatunga SK, Zipunnikov V, Ferrucci L, Simonsick EM, Spira AP. Associations of actigraphic sleep parameters with fatigability in older adults. *The Journals of Gerontology: Series A*. 2020;75(9):e95-e102.
 33. Fadel WF, **Urbanek JK**, Glynn NW, Harezlak J. Use of Functional Linear Models to Detect Associations between Characteristics of Walking and Continuous Responses Using Accelerometry Data. *Sensors*. 2020;20(21):6394.
 34. Heravi AS, Etkorn LH, **Urbanek JK**, Crainiceanu CM, Punjabi NM, Ashikaga H, Brown TT, Budoff MJ, D'Souza G, Magnani JW. HIV infection is associated with variability in ventricular repolarization: the multicenter AIDS cohort study (MACS). *Circulation*. 2020;141(3):176-187.
 35. Rojo-Wissar DM, Owusu JT, Nyhuis C, Jackson CL, **Urbanek JK**, Spira AP. Parent-child relationship quality and sleep among adolescents: Modification by race/ethnicity. *Sleep health*. 2020;6(2):145-152.
 36. Salerno EA, Wanigatunga AA, An Y, **Urbanek JK**, Simonsick EM, Ferrucci L, Resnick SM, Schrack JA. Longitudinal association between perceived fatigability and cognitive function in older adults: results from the Baltimore longitudinal study of aging. *The Journals of Gerontology: Series A*. 2020;75(9):e67-e73.
 37. Smirnova E, Leroux A, Cao Q, Tabacu L, Zipunnikov V, Crainiceanu C, **Urbanek JK**. The predictive performance of objective measures of physical activity derived from accelerometry data for 5-year all-cause mortality in older adults: National Health and Nutritional Examination Survey 2003–2006. *The Journals of Gerontology: Series A*. 2020;75(9):1779-1785.
 38. Wanigatunga AA, Wang H, An Y, Simonsick EM, Tian Q, Davatzikos C, **Urbanek JK**, Zipunnikov V, Spira AP, Ferrucci L. Association between brain volumes and patterns of physical activity in community-dwelling older adults. *The Journals of Gerontology: Series A*. Published online 2020.
 39. Broll S, **Urbanek J**, Buchanan D, Chun E, Muschelli J, Punjabi NM, Gaynanova I. Interpreting blood GLUcose data with R package iglu. *Plos one*. 2021;16(4):e0248560.
 40. Cai Y, Schrack JA, Wang H, Wanigatunga AA, Agrawal Y, **Urbanek JK**, Simonsick EM, Ferrucci L, Swenor BK. Visual Impairment and Objectively Measured Physical Activity in Middle-Aged and Older Adults. *The Journals of Gerontology: Series A*. Published online 2021.
 41. Ghosal R, Varma VR, Volfson D, Hillel I, **Urbanek J**, Hausdorff JM, Watts A, Zipunnikov V. Distributional data analysis via quantile functions and its application to modeling digital biomarkers of gait in Alzheimer's Disease. *arXiv preprint arXiv:210210783*. Published online 2021.

42. Karas M, Strączkiewicz M, Fadel W, Harezlak J, Crainiceanu CM, **Urbanek JK**. Adaptive empirical pattern transformation (ADEPT) with application to walking stride segmentation. *Biostatistics*. 2021;22(2):331-347.
43. Malone SK, Patterson F, Grunin L, Melkus GD, Riegel B, Punjabi N, Yu G, **Urbanek J**, Crainiceanu C, Pack A. Habitual physical activity patterns in a nationally representative sample of US adults. *Translational behavioral medicine*. 2021;11(2):332-341.
44. Varma VR, Ghosal R, Hillel I, Volfson D, Weiss J, **Urbanek JK**, Hausdorff JM, Zipunnikov V, Watts A. Continuous gait monitoring discriminates community-dwelling mild Alzheimer's disease from cognitively normal controls. *Alzheimer's & Dementia: Translational Research & Clinical Interventions*. 2021;7(1):e12131.

Review Articles [RA]

1. **Urbanek J**. Mechanical Vibrations as the Source of Information (In Polish), *Sluzby Utrzymania Ruchu*, 2011:1
2. Szumilas L, **Urbanek J**. Diagnostic Center – Modern Trends in Maintenance and Reliability (In Polish), *Sluzby Utrzymania Ruchu*, 2010:2
3. **Urbanek J**. Method for Detection of Mechanical Overloads in Turbosets (In Polish), *Sluzby Utrzymania Ruchu*, 2010:6
4. **Urbanek J**, Barszcz T, Sawalhi N, Randall R. Comparison of amplitude-based and phase-based methods for speed tracking in application to wind turbines, *Metrology and Measurement Systems*, 2011:18(2):295-304
5. Zimroz R, **Urbanek J**, Barszcz T, Bartelmus W, Millioz F, Martin N. Measurement of instantaneous shaft speed by advanced vibration signal processing-application to wind turbine gearbox, *Metrology and Measurement Systems*, 2011:18(4):701-712
6. Karas, M., Bai, J., Strączkiewicz, M., Harezlak, J., Glynn, NW., Harris T., Zipunnikov, V., Crainiceanu, C., **Urbanek, J.**, Accelerometry data in health research: challenges and opportunities. Review and examples, *Stat. Biosci* 11, 1-28, 2019

Letters, Correspondence [LT]

1. Gaynanova, I., **Urbanek, J.**, Punjabi, N. M. (2018). Corrections of Equations on Glycemic Variability and Quality of Glycemic Control. *Diabetes technology & therapeutics*, 20(4), 317-317.
2. Kuo P., **Urbanek J.**, Schrack J., Age-Related Bias in Total Step Count Recorded by Wearable Devices, *JAMA Intern Med*. 2019 Nov 1;179(11)

Other Publications:

Books, Textbooks [BK]

1. Barszcz T, **Urbanek J**. Monitoring and diagnostics of rotating machinery: practical handbook of vibro-diagnostics (In Polish), Wydawnictwo Naukowe Instytutu Technologii Eksploatacji – BIP, Poland 2008

Software:

1. Software package – MATLAB - Two-step method for instantaneous phase reconstruction – 2012
www.mathworks.com/matlabcentral/fileexchange/43240-two-step-method
2. Software package – MATLAB - Modulation intensity distribution (MID) – 2012
www.mathworks.com/matlabcentral/fileexchange/43102-modulation-intensity-distribution-gui
3. Software package – MATLAB - Angular/Temporal Short Time Fourier Transform – 2014
krim.agh.edu.pl/wp-content/uploads/2015/06/Angular_Temporal_STFT.pdf
4. Software package – MATLAB -Separation of generalized angular/temporal components – 2014
krim.agh.edu.pl/wp-content/uploads/2015/06/DRS_GATP_JU.pdf
5. Software package – R – Runstat (with Marta Karas) – 2018
cran.r-project.org/web/packages/runstats/index.html
 - 11,796 downloads
6. Software package – R – ADEPT Data – (with Marta Karas, Jaroslaw Harezlak, and William Fadel) – 2018
cran.r-project.org/web/packages/adeptdata/index.html
 - 13,386 downloads

7. Software package – R – ADEPT – (with Marta Karas, Jaroslaw Harezlak, and William Fadel) – 2019
cran.r-project.org/web/packages/adept/index.html
 - *placed in the top 3 packages of CRAN "Medicine" section for May 2019*
 - *12, 548 downloads*
8. Software Package – R – iGlu – (with Irina Gaynanova) – 2020
cran.r-project.org/web/packages/iglu/index.html
 - *4,259 downloads*
9. Software package – R – ARCTOOLS – (with Marta Karas) – 2020
cran.r-project.org/web/packages/arctools/index.html
 - *2,550 downloads*

Media Releases or Interviews [MR]

06/15/17	Press release “19-Year-Olds As Sedentary As 60-Year-Olds, Study Suggests”
04/25/18	Interviewed by Reporter Paul Gessler on Channel 45- Fox News Baltimore, “School Sleep Study” Original top story interview – news at 5 pm
04/25/18	Press release “Americans’ Bedtime Habits Affirmed in New Study”
10/30/19	Press release “Wearable Activity Trackers a Reliable Tool for Predicting Death Risk in Older Adults”
11/06/19	Interviewed by Elizabeth Tracey, Johns Hopkins Health NewsFeed Audio Production

FUNDING

EXTRAMURAL Funding

Current

06/01/2018-05/31/2022	Human Locomotor Plasticity in Health and Disease 5R37NS090610 NIH Role: Sub-PI 10% \$17,381
08/20/2018-07/31/2023	The Kidney Disease in Children Data Management and Analysis Center (KIDMAC) U01DK066116 NIDDK Role: Biostatistician 5% \$1,021,697
09/30/2017-04/30/2022	Energy Reserves, Physical Activity, and Alzheimer's Disease in The Baltimore Longitudinal Study of Aging 1U01AG057545 NIA Role: Biostatistician 15% \$372,499
02/01/2019-11/30/23	Contribution of sensorimotor function to risk and pathogenic mechanism of Alzheimer’s disease and related dementias. R01AG061786 NIA Role: Co-Investigator 15% \$454,178
09/26/2019 – 08/31/2023	ARIC Neurocognitive Study (ARIC-NCS) Renewal U01 HL096812 NIH/NHLBI Role: Biostatistician 35% \$9,031,930
09/01/2019-07/31/2023	Data Center for Acute to Chronic Pain Biosignatures 1U54DA049110-01 NIH/NIDA Role: Co-Investigator 8%

\$6,071,196

06/01/2017-05/31/2022 Aging, Cognition, and Hearing Evaluation in Elders (ACHIVE) Randomized Trial
5R01AG055426-04 NIA
Role: Co-Investigator 5%
\$2,587,486

09/30/2019 – 08/31/2022 Characterizing Resiliencies to Physical Stressors in Older Adults: A Dynamical
Physiological Systems Approach
4UH3AG056933-04 NIH/NIA
Role: Co-Investigator 5%
\$2,351,908

CLINICAL ACTIVITIES

Not applicable

EDUCATIONAL ACTIVITIES

Educational Focus

My teaching focus is on the application of data science in health research with the main emphasis on the analysis of high-density, multidimensional biological data in the free-living and laboratory environments.

Teaching

JHMI/Regional
None

National

None

International

2011 - 2012 Co-lecturer – Maintenance of Mechatronic Devices one semester a year, University of
Science and Technology – Krakow, Poland

2010 - 2012 Seminar instructor – Maintenance of Mechatronic Devices, one semester a year, University of
Science and Technology – Krakow, Poland

2009 - 2011 Instructor, Monitoring Systems in Automatics and Robotics – LabView, one semester a year,
University of Science and Technology – Krakow, Poland

Clinical instruction

Not applicable

Mentoring

Pre-doctoral Advisees /Mentees

2017 - present Marta Karas, doctoral student

Thesis committees

2021 Lacey Etzkorn, PhD, Biostatistics
2020 Andrew Leroux, PhD, Biostatistics
2018 Chih-Kai Chang, MSc, Biostatistics

Educational Program Building / Leadership

None

Educational Demonstration Activities to external audience

05/2018 MSTAR – Introduction to Biostatistics, Johns Hopkins School of Medicine

RESEARCH ACTIVITIES**Research Focus**

My research primarily focuses on data analytics for better understanding how real-life physical activity is related to health outcomes including disease diagnoses, disabilities, and measures of physical function. Specifically, I work on real-time recognition and quantification of walking and instantaneous changes in gait characteristics. I develop methods that utilize the unprecedented temporal resolution of the data produced by activity tracking “wearables” and create reproducible analytical pipelines for discovering and quantifying human activity patterns in a robust and scalable fashion.

Research Program Building / Leadership

04/01/2020 - Leader of Accelerometry Resource Core at Center on Aging and Health
 06/01/2019 - Co-leader of the research group – ENGAGE: Energy, Physical Activity and Aging
[\(https://engageresearchlab.org/\)](https://engageresearchlab.org/)

Research Demonstration Activities

None

Inventions, Patents, Copyrights

None

Technology Transfer Activities

None

SYSTEM INNOVATION AND QUALITY IMPROVEMENT ACTIVITIES**System Innovation and Quality Improvement efforts within JHMI:**

None

System Innovation and Quality Improvement efforts outside of JHMI

None

System Innovation and Quality Improvement Program Building/Leadership:

None

ORGANIZATIONAL ACTIVITIES**Institutional Administrative Appointments**

None

Editorial Activities**Editorial Board appointments**

2017-present Sleep – statistical editor
 2021 Sensors – Guest Editor for the Special Issue “Data Analytics and Applications of Wearable Sensors in Healthcare”

Journal peer review activities

2011-present Mechanical Systems and Signal Processing
 2012-present Measurement
 2012-present Diagnostyka
 2012-present Metrology and Measurement Systems
 2013-present Measurement Science and Technology
 2013-present Applied Acoustics
 2014-present Sensors
 2015-present PLOS ONE

2016-present Probabilistic Engineering Mechanics
2017-present Journals of Gerontology: Medical Sciences

Other peer review activities [non medico-legal]

2017 Abstracts referee for 21st IAGG World Congress of Gerontology and Geriatrics

Advisory Committees, Review Groups/Study Sections

None

Professional Societies

2008-2013 Member, Polskie Towarzystwo Diagnostyki Technicznej
2014-present Member, The International Biometric Society
2015-present Member, Gerontological Society of America
2019-present Member, American College of Sports Medicine

Conference Organizer

JHMI/Regional

None

International

6/16 Symposium Organizer, ICAMPAM 2017, Bethesda, MD

Session Chair

JHMI/Regional

None

National

3/14 Session chair, Eastern North American Region International Biometric Society, Baltimore, MD
3/16 Session chair, Eastern North American Region International Biometric Society, Austin, TX
11/20 Symposium Organizer and chair, Gerontological Society of America Annual Meeting, Online

International

6/17 Symposium Organizer and chair, ICAMPAM 2017, Bethesda, MD

Consultantships

None

RECOGNITION

Awards, Honors

2009 First place in Wladyslaw Bogusz contest – Polish Acoustic Association, Zakopane, Poland
2011 First position in the ranking of PhD students of Lesser Poland Province in the project „Doctus – Malopolski fundusz stypendialny dla doktorantów”, Cracow, Poland
2012 Best PhD student AGH Rector’s award, Cracow, Poland
2014 Best paper award - The 4th International Conference on Condition Monitoring of Machinery in Non-Stationary Operations (CMMN0'2014), Lyon, France
2015 Best poster award – ENAR, Miami, FL
2016 First place in the postdoctoral poster competition - 9th Annual Research on Aging Showcase, Baltimore, MD
2021 W. Leigh Thompson Excellence in Research Award, Baltimore, MD

Invited Talks**JHMI/Regional**

- 10/18/18 Objectively Measured Physical Activity and Visual Impairment: Baltimore Longitudinal Study on Aging, Johns Hopkins University – Geriatrics Grand Rounds, October 2018, Baltimore, MD
- 09/23/19 Accelerating big data computing with Graphics Processing Units (GPUs) and it's application in free-living gait analysis in older adults at risk of falls, Center on Aging and Health Biostatistical Meeting, August 2019, Baltimore, MD
- 04/29/20 Application of wearable devices in large cohort studies and clinical trials, Behavioral Pharmacology Research Unit, JH SOM, Baltimore, MD

National

- 05/15/13 Invited speaker, Department seminars, Department of Biostatistics, Indiana University School of Medicine, Where machine vibrations meet human brain dynamics, Indianapolis, IN
- 10/05/13 Invited speaker, SMART group meeting, Department of Biostatistics, Johns Hopkins Bloomberg School of Public Health, Where machine vibrations meet human brain dynamics, Baltimore, MD
- 03/17/14 Contributed session speaker, ENAR 2014, Pre-Processing of the Longitudinal Structural Brain Imaging Data: A Case Study, Baltimore, MD
- 05/04/14 Invited speaker, Keck School of Medicine of USC, Laboratory of Neuro Imaging^[1] Institute of Neuroimaging and Informatics, Automatic Detection and Quantification of Walking using Wearable Accelerometry Devices, Los Angeles, CA
- 12/14/14 Invited speaker, PennSIVE group meeting - Department of Biostatistics and Epidemiology, Center for Clinical Epidemiology and Biostatistics, Perelman School of Medicine, University of Pennsylvania, Pre-processing of structural MRI data, Philadelphia, PA
- 11/05/14 Invited Workshop Speaker, Assessing Daily Activity in Old Age: Unraveling the Complexity of Monitors - Measures, and Methods, Gerontology Society of America Annual Meeting, Automatic Detection and Quantification of Walking Using Wearable Accelerometry Devices, Washington, DC
- 09/11/14 Speaker, Regenstrief Institute –Work in Progress meetings, Automatic detection and quantification of walking using wearable accelerometry devices. How reliable are the fitness monitors? Indianapolis, IN
- 09/14/15 Speaker, Biostatistics Grand Rounds - Bloomberg School of Public Health, Accelerometry-based detection and identification of walking in observational studies, Baltimore, MD
- 03/06/16 Speaker, IDEAS meeting for the Sandra Eskenazi Center for Brain Care Innovation, Objective quantification of human activity using wearable devices, Indianapolis, IN
- 06/09/17 Statistical modeling of circadian rhythms of physical activity, Invited symposium speaker and organizer, International Conference on Ambulatory Monitoring of Physical Activity and Movement, June 2017, Bethesda, MD
- 06/25/17 Analyzing raw activity data to determine stride-to-stride gait variability, Invited symposium speaker, IAGG 2017, San Francisco, CA
- 11/15/17 Objective quantification of human activity using wearable accelerometers - Challenges and Opportunities, Center on Aging and Health Biostatistical Meeting, Baltimore, MD
- 04/11/18 Gait characteristics extracted from raw data collected by wearable accelerometers - Estimation and validation, Indiana University, Bloomington, IN
- 10/27/18 Objective Quantification of Human Activity in Large Health Studies Using Wearable Accelerometers, University of District of Columbia, November 2018, Washington, DC
- 11/15/18 Learning More from Patterns of 400-meter Walk, Invited Symposium: Digging Deeper: Insights into Physical and Cognitive Health Using Novel Methods for Accelerometry and Function, Gerontological Society of America Annual Meeting, November 2018, Boston, MA
- 10/15/18 Objective Quantification of Human Activity in Large Health Studies Using Wearable Accelerometers, West Virginia University, November 2018, Morgantown, WV
- 02/24/20 Streamlining the collection and processing of accelerometry data in large cohort studies and clinical trials, Use of Wearable and Implantable Devices in Health Research Workshop, Banff International Research Station for Mathematical Innovation and Discovery, Banff, CA

11/04/20 Large-Scale Measurements of Physical Activity With Wearable Devices: An International Perspective: Streaming Symposia, Discussant, Gerontological Society of America Annual Meeting 2020, Online

International

06/10/15 Speaker, ICAMPAM 2015, Analyzing raw accelerometer output: challenges in detecting walking, Invited Symposium: The Impact of Accelerometer Wear Location in Studies of Older Adults, Limerick, Ireland

06/20/19 Introduction to objective measurement of physical activity with wearable devices, West China Hospital Department of Gerontology, June 2019, Chengdu, China

06/22/19 Objective quantification of human activity using wearable accelerometers - Challenges and Opportunities, Plenary talk, JinSha Conference, June 2019, Chengdu, China

02/23/20 Invited Speaker, Streamlining the collection and processing of accelerometry data in large cohort studies and clinical trials, Use of Wearable and Implantable Devices in Health Research to be held at the Banff International Research Station

OTHER PROFESSIONAL ACCOMPLISHMENTS

11/03/16 Moderator of the panel discussion on remote data collection, Symposium on Ancillary Studies in the CKiD and CIRC studies, Crystal City, VA