

JUNRUI DI

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STATISTICAL METHODS RESEARCH INTERESTS

feature engineering for wearable devices, matrix and tensor decompositions, dimension reduction, functional data analysis.

SCIENTIFIC RESEARCH INTERESTS

wearable computing and its applications in public health (e.g. mental health and aging), physical activity assessment, sleep, circadian rhythm, gerontological epidemiology.

EDUCATION

Johns Hopkins Bloomberg School of Public Health Expected: *May 2019*
Ph.D. in Biostatistics

Advisor: Vadim Zipunnikov, Ph.D.

Georgetown University *Dec 2013*
M.S. in Biostatistics

Thesis: *Robust Integrative Analysis of Multi-Block Contaminated Datasets*

Advisor: Valeriy Korostyshevskiy, Ph.D.

University of California, Berkeley *May 2012*
B.A. in Applied Mathematics

High Distinction General Scholarship (roughly equivalent to Magna Cum Laude)

EXPERIENCE

Research Assistant *Jun 2015 - Present*
Johns Hopkins Bloomberg School of Public Health
Baltimore, MD

Advisor: Vadim Zipunnikov, Ph.D.

Co-Investigator *May 2013 - Apr 2014*
Multicenter AIDS Cohort Study
Washington, DC

Advisor: Michael Plankey, Ph.D.

Research Assistant *Sep 2012 - May 2013*
Georgetown University
Washington, DC

Advisor: George Luta, Ph.D. and Valeriy Korostyshevskiy, Ph.D.

PUBLICATIONS

Published / In Press

1. Varma, V., Dey D., Leroux A., **Di, J.**, Urbanek, J., and Zipunnikov, V.. Re-evaluating the effect of age on physical activity over the lifespan. *Preventive Medicine*. 2017; 101: 102-108.

2. **Di, J.**, Li, Y., Friedman, MR., Reddy, S., Surkan, PJ., Shoptaw, S., and Plankey, M.. Determining Survey Satisficing of Online Longitudinal Survey Data in the Multicenter AIDS Cohort Study using a Group-Based Trajectory Analysis. *Journal of Medical Internet Research Public Health and Surveillance*. 2016; 2(2): e150.

Under Review / Revision

3. Zipunnikov, V., Dey, D., Leroux, A., **Di, J.**, Urbanek, J., Harris, T., and Crainiceanu, C.. Objectively measured late-morning physical activity predicts mortality in the NHANES 2003-2006 cohorts. Resubmitted to *PLoS One* after revision.
4. **Di, J.**, Leroux, A., Urbanek, J., Spira, A., Schrack, J., and Zipunnikov, V.. Methods to quantify fragmentation of accelerometry-measured physical activity. Under review *PLoS One*.
5. Johns, J., **Di, J.**, Merikangas, K., Cui, L., Swendsen, J., and Zipunnikov, V.. Fragmentation as a novel measure of stability in normalized trajectories of mood and attention assessed by electronic diaries. Under review *Physiological Measurement*.
6. Grigsby, M., **Di, J.**, Leroux, A., Xiao, L., Zipunnikov, V., Crainiceanu, C., and Checkley, W.. Novel Metrics for Growth Model Selection. Under review *Emerging Themes in Epidemiology*.
7. Urbanek, J., Spira, A., **Di, J.**, Leroux, A., Crainiceanu, C., and Zipunnikov, V.. Epidemiology of Objectively Measured Bedtime and Chronotype in the US adolescents and adults: NHANES 2003-2006. Under review *Chronobiology International*.

In Preparation

8. A study on extension of the fragmentation metrics.
9. A study on analyzing accelerometry data measured at multiple days.

PRESENTATIONS

1. Integrative Analysis of Multi-Block Contaminated Datasets (topic contributed). *2013 JSM, Montreal, Canada*
2. Fragmentation of Physical Activity and Its Application (poster). *2016 Baltimore Aging Showcases, Baltimore, MD*
3. Novel Statistical Framework to Quantify Fragmentation of Physical Activity (contributed). *2017 ENAR, Washington, DC*.
4. Fragmentation of Physical Activity and Its Application (oral). *2017 ICAMPAM, Bethesda, MD*.
5. Fragmentation of Daily Physical Activity: Prediction of Mortality in NHANES 2003-2006 (oral). *2017 IAGG, San Francisco, CA*.

EDITORIAL ACTIVITIES

Referee for:

Journal of Statistical Software (JSS) [1]

International Association of Gerontology and Geriatrics 2017 World Congress (IAGG) [1]

Journal of Medical Internet Research Cardio (JMIR Cardio) [1]

Journal of Medical Internet Research Mental Health (JMIR Mental Health) [1]

PROFESSIONAL ACTIVITIES

Organizer of the JHSPH Biostatistics Computing Club

2015 - 2016

Session chair, JSM

2017

HONORS & AWARDS

The Louis I. and Thomas D. Dublin Award

Mar 2017

Washington Statistical Society Outstanding Graduate Student Award

Jun 2013

Phi Beta Kappa Honor Society Inductee

May 2012

TEACHING EXPERIENCE

PH.140.623 - **Lab Instructor** Statistical Methods in Public Health III

Spring 2018

PH.140.621 - **Lab Instructor** Statistical Methods in Public Health I

Fall 2017

PH.140.623-4 - Statistical Methods in Public Health III-IV

Spring 2017

PH.140.621-2 - Statistical Methods in Public Health I-II

Fall 2016

PH.140.753-4 - Advanced Methods in Biostatistics III-IV

Spring 2016

PH.140.751-2 - Advanced Methods in Biostatistics I-II

Fall 2015

BIST 514 - Linear Modeling & Multivariate Analysis

Spring 2014

PROFESSIONAL MEMBERSHIP

Americal Statistical Association (ASA)

Washington Statistical Society (WSS)

International Biometric Society (ENAR)

CERTIFICATIONS

SAS Certified Advanced Programmer for SAS 9

Aug 2013

SAS Certified Base Programmer for SAS 9

Jul 2013

COMPUTING SKILLS

R, Matlab, SAS, \LaTeX