# 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

Ph.D, Biostatistics

Advisor: Vadim Zipunnikov, Ph.D.

## Georgetown University

Dec 2013

Expected: May 2019

M.S., Biostatistics

Thesis: Robust Integrative Analysis of Multi-Block Contaminated Datasets

Advisor: Valeriy Korostyshevskiy, Ph.D.

## University of California, Berkeley

May 2012

B.A. 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. Accepted by *Preventive Medicine*.

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 *Medicine & Science in Sports & Exercise*.
- 5. Johns, J., **Di**, **J.**, Zipunnikov, V., Swendsen, J., Merikangas, K.. Fragmentation as a novel measure of mood stability assessed by electronic diaries. Under review *Psychological Measurements*.
- 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 (oral 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 (oral 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: IAGG

#### 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-	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,  $\LaTeX$