

# JUNRUI DI

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## RESEARCH INTERESTS

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Statistical methods for wearable devices, Matrix/Tensor decomposition, Functional data analysis, Physical activity assessment, mHealth

## EDUCATION

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

Advisor: Vadim Zipunnikov, Ph.D.

**Georgetown University** *Dec 2013*  
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), Phi Beta Kappa*

## EXPERIENCE

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

Supervisor: Vadim Zipunnikov, Ph.D.

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

Supervisor: Michael Plankey, Ph.D.

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

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

## PUBLICATIONS

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### Published / In Press

1. **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.
2. 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*.

### 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. Under Revision *PLOS One*.
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 Methods*.
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.

## **HONORS & AWARDS**

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The Louis I. and Thomas D. Dublin Award

Mar 2017

Washington Statistical Society Outstanding Graduate Student Award

Jun 2013

## **PRESENTATIONS**

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1. Integrative Analysis of Multi-Block Contaminated Datasets (oral contributed). *2013 JSM, Montreal, Canada*
2. Novel Statistical Framework to Quantify Fragmentation of Physical Activity (oral contributed). *2017 ENAR, Washington, DC.*
3. Novel Statistical Framework to Quantify Fragmentation of Physical Activity (oral). *2017 ICAMPAM, Bethesda, MD.*
4. Novel Statistical Framework to Quantify Fragmentation of Physical Activity (oral). *2017 IAGG, San Francisco, CA.*

## **TEACHING EXPERIENCE**

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PH.140.621-4 - Statistical Methods in Public Health I-IV

2016 - 2017

PH.140.751-4 - Advanced Methods in Biostatistics I-IV

2015 - 2016

BIST 514 - Linear Modeling & Multivariate Analysis

Spring 2014

## **CERTIFICATIONS**

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SAS Certified Advanced Programmer for SAS 9

Aug 2013