

Jeff Goldsmith

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Date of Preparation

April 20, 2021

Academic Appointments / Work Experience

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|-----------------|--|
| 06/2018–Present | Department of Biostatistics Mailman School of Public Health, Columbia University Associate Professor |
| 06/2012–05/2018 | Department of Biostatistics Mailman School of Public Health, Columbia University Assistant Professor |
| 01/2009–12/2010 | Department of Biostatistics Bloomberg School of Public Health, Johns Hopkins University Research Assistant (R01NS060910) |
| 01/2008–12/2009 | Department of Biostatistics Bloomberg School of Public Health, Johns Hopkins University Research Assistant (U19 AI060614 and U19 AI082637) |
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Education

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|-----------------|---|
| 08/2007–05/2012 | Johns Hopkins University PhD in Biostatistics, May 2012 Thesis: Statistical Methods for Cross-sectional and Longitudinal Functional Observations Advisors: Ciprian Crainiceanu and Brian Caffo |
| 08/2003–05/2007 | Dickinson College BS in Mathematics, May 2007 |
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Honors

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| 04/2021 | Dean's Excellence in Leadership Award |
| 03/2021 | COPSS Leadership Academy For Emerging Leaders in Statistics |
| 06/2017 | Tow Faculty Scholar |
| 01/2016 | Public Voices Fellow |
| 10/2013 | Calderone Junior Faculty Prize |
| 05/2012 | ASA Biometrics Section Travel Award |
| 12/2011 | Invited Paper in "Highlights of JCGS" Session at Interface |
| 05/2011 | Margaret Merrell Award for Outstanding Research by a Biostatistics Doctoral Student |
| 05/2011 | School-wide Teaching Assistant Recognition Award |
| 05/2011 | Helen Abbey Award for Excellence in Teaching |
| 03/2011 | ENAR Distinguished Student Paper Award |
| 05/2010 | Jane and Steve Dykacz Award for Outstanding Paper in Medical Statistics |
| 05/2009 | Nominated for School-wide Teaching Assistant Recognition Award |
| 08/2007–05/2012 | Sommer Scholar |
| 05/2007 | James Fowler Rusling Prize |
| 05/2007 | Lance E. Kohlhaas Memorial Prize in Mathematics |
| 05/2007 | Phi Beta Kappa National Honor Society |
| 05/2005 | Pi Mu Epsilon Mathematics Honor Society |
| 05/2004, 05/2005 | Caroline Hatton Clark Mathematics Scholarship |
| 08/2003–05/2007 | John Dickinson Scholar |
| 05/2002 | National Merit Scholar |

Professional Organizations, Societies, and Service

GRANT REVIEW SERVICE

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|------|--|
| 2020 | Dutch Research Council (NWO) Vici |
| 2016 | NSF/NIH Initiative on Quantitative Approaches to Biomedical Big Data (QuBBD) |

EDITORIAL SERVICE

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|-----------------|--|
| 10/2020–Present | Guest Editor, Computational Statistics and Data Analysis (Special Issue on High Dimensional and Functional Data Analysis) |
| 08/2019–Present | Statistical Reviewer, JAMA Network Open |
| 09/2018–Present | Associate Editor for Reproducibility, Journal of the American Statistical Association (Applications and Case Studies) |
| 02/2017–Present | Associate Editor, Biostatistics |
| 12/2015–09/2018 | Associate Editor, Journal of the American Statistical Association (Applications and Case Studies) |
| 08/2012–03/2015 | Consulting Editor in Statistics, Journal of Cardiovascular Pharmacology |
| Referee | Advances in Statistical Analysis, American Journal of Public Health, Annals of Applied Statistics, Australian & New Zealand Journal of Statistics, Bioinformatics, Biometrics, Biometrika, Biostatistics, Chemometrics, Chemometrics and Intelligent Laboratory Systems, Computational Statistics and Data Analysis, CRC Press (Book review), Econometrics and Statistics, Electronic Journal of Statistics, Environmental and Ecological Statistics, Environmental Research, IEEE/AMC Transactions on Computational Biology and Bioinformatics, International Journal of Biostatistics, Journal of the American Statistical Association, Journal of Child Psychology and Psychiatry, Journal of Computational and Graphical Statistics, Journal of Gerontology: Medical Sciences, Journal of Multivariate Analysis, Journal of the Royal Statistical Society (Series A, B & C), Journal of Nonparametric Statistics, Journal of Statistical Computation and Simulation, Journal of Statistical Planning and Inference, Journal of Science and Medicine in Sport, Pediatric Obesity, PLOS One, R Journal, Scandinavian Journal of Statistics, Statistica Sinica, Statistical Modeling, Statistics in Medicine, WIREs Computational Statistics. |

MEMBERSHIPS AND POSITIONS

| | |
|-----------------|--|
| 06/2018–06/2020 | ENAR Nominations Committee |
| 03/2017–03/2018 | Associate Program Chair, ENAR 2018 Meeting |
| 01/2017–Present | Regional Advisory Board (Member), ENAR |
| 10/2010–Present | ENAR (Member) |
| 08/2009–Present | ASA (Member) |

Departmental and University Committees

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|-------------------------------------|---|
| 08/2020–Present | Director of the PhD Program, Department of Biostatistics |
| 07/2020–Present | Faculty Director of the Collaboratory, Columbia University |
| 09/2019–Present | Member, Qualifying Exam Committee (Applied), Department of Biostatistics |
| 07/2019–Present | Co-Chair, Mailman Data Science Faculty Advisory Committee |
| 09/2018–09/2020 | Member, Annual Faculty Review Committee, Department of Biostatistics ■ Co-Chair 09/2019–09/2020 |
| 02/2018–Present | Member, Mailman Corporate-Academic Committee |
| 02/2018–Present | Member, Education Working Group, Data Science Institute, Columbia University ■ Co-Chair 07/2020–Present |
| 09/2017–09/2019 | Member, PhD Program Taskforce, Department of Biostatistics ■ Co-Chair 09/2018–09/2019 |
| 09/2016–09/2019 | Member, Student Recruitment Committee, Department of Biostatistics ■ Chair 09/2016–09/2017 |
| 09/2016–Present | Member, Health Analytics Center Committee, Data Science Institute ■ Member of Steering Committee, 01/2021–Present |
| 08/2015–09/2020 | Member, Curriculum Committee, Department of Biostatistics |
| 10/2014–06/2015 | Co-Director, Global Research Analytics for Population Health (GRAPH), Mailman School of Public Health |
| 08/2014–08/2019, 09/2020–Present | Member, Faculty Recruitment Advisory Committee, Department of Biostatistics ■ Chair 09/2017–09/2018 |
| 08/2014–09/2016, 09/2020–Present | Member, Research Advisory Committee, Department of Biostatistics |
| 08/2014–05/2015 | Co-Organizer, Levin Lecture Series, Department of Biostatistics |
| 12/2012–Present | Member, Doctoral Admissions Committee, Department of Biostatistics ■ Chair 09/2018–09/2020; Co-Chair 09/2020–Present |

Fellowship and Grant Support

PRESENT SUPPORT

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|-------------------|---|
| 8/2020–4/2024 | R01 DK123285-01A1, NIH / NIDDK & Ofc of the Dir, NIH (Gamble) Metabolomic and Nutrigenetic Effects of Folic Acid Supplementation and Unmetabolized Folic Acid Co-Investigator |
| 3/2020–12/2024 | R01MD014872-01 , NIH/NIMHHD, NIH (Woo Baidal) LINC: Leveraging IT for Neighborhoods in Childhood Co-Investigator |
| 4/2019–3/2024 | R01 AG062401, NIH / NIA (McKeague) Inferential methods for functional data from wearable devices Co-Investigator |
| 12/2018 – 11/2023 | R01 HS025937, AHRQ (Poghosyan) Social Networks in Medical Homes and Impact on Patient Care and Outcome Co-Investigator |
| 7/2018– 6/2021 | DDCF 2018090, Doris Duke Charitable Foundation (Woo Baidal) Developing novel clinical approaches to reduce childhood obesity risk Co-Investigator |
| 01/2018–12/2023 | R01 ES028805, NIH/NIEHS (Kioumourtzoglou) Principal Component Pursuit to Assess Exposure to Environmental Mixtures in Epidemiologic Studies Co-Investigator |
| 07/2016–07/2021 | R01 NS097423-01, NIH / NINDS (Goldsmith) Functional data analytics for kinematic assessments of motor control Principal Investigator |
| 09/2010–04/2021 | K24 AG036778-10, NIH / NIA (Maurer) Midcareer Mentoring Award for Patient Oriented Research In Geriatric Cardiology Co-Investigator |

PAST SUPPORT

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|-----------------|---|
| 08/2017–06/2021 | R01 EB024526-02, NIH / NIBIB (Ogden) Advanced Modeling Techniques for Brain Imaging Data with PET Co-Investigator |
| 09/2014–07/2019 | R01 HL123407, NIH / NHLBI (Crainiceanu) Statistical methods for biosignals with varying domains Subcontract Principal Investigator |
| 11/1998–07/2019 | P50 ES009600, NIH / NIEHS (Perera) The Columbia Center for Children's Environmental Health Co-Investigator |
| 09/2015–05/2019 | R01 AG049970, NIH / NIA (Lovasi) Communities Designed to Support Cardiovascular Health for Older Adults Co-Investigator |
| 04/2018–03/2019 | R25 GM062454, NIH / NIGMS (Contact PI: Wingood) IMSD at Columbia's Mailman School of Public Health Co-PI |
| 06/2015–06/2017 | R21 EB018917, NIH / NIBIB (Goldsmith) Generalized, multilevel functional response models applied to accelerometer data Principal Investigator |
| 09/2014–05/2016 | R21 AG046703, NIH / NIA (Maurer) Can Ventricular Assist Devices Reverse the Frailty Phenotype Co-Investigator |
| 07/2014–07/2016 | McDonnell Foundation (Kitago) Augmenting spontaneous recovery with robotic arm therapy and non-invasive brain stimulation Co-Investigator |
| 04/2012–04/2016 | R01 NS078419, NIH / NINDS (Ottman) Psychosocial Impact of Genetics in Epilepsy Co-Investigator |

Teaching Experience and Responsibilities

SPECIFIC COURSES

| | |
|-------------|--|
| Fall 2020 | Data Science I (200 enrolled students) |
| Fall 2019 | Data Science I (180 enrolled students) |
| Summer 2019 | Introduction to Biostatistics (23 enrolled students) |
| Fall 2018 | Data Science I (143 enrolled students) |
| Fall 2017 | Data Science I (76 enrolled students) |
| Spring 2016 | Linear Regression Models (43 enrolled students) |
| Spring 2015 | Linear Regression Models (55 enrolled students) |
| Summer 2015 | Applied Regression II (6 enrolled students) |
| Spring 2014 | Categorical Data Analysis (15 enrolled students) |
| Spring 2014 | Linear Regression Models (34 enrolled students) |
| Spring 2013 | Categorical Data Analysis (16 enrolled students) |
| Spring 2013 | Linear Regression Models (17 enrolled students) |

GENERAL TEACHING ACTIVITIES

| | |
|-----------------|--|
| Fall 2019 | Joint Statistical Meeting Short Course (“Functional Data Analysis for Wearables: Methods and Applications”) |
| Spring 2017 | International Conference on Ambulatory Monitoring of Physical Activity Short Course (“Functional Data Analysis for Wearables: Methods and Applications”) |
| Spring 2017 | International Workshop on Advances in Functional Data Analysis Short Course (“Variable Selection in Functional Regression”) |
| Summer 2016 | Grant Mentor, Columbia Summer Research Institute |
| Summer 2014 | Grant Mentor, Columbia Summer Research Institute |
| Summer 2014 | Undergraduate Mentor, Columbia Summer Institute for Training in Biostatistics |
| Summer 2014 | Undergraduate Mentor, Biostatistics Enrichment Summer Training Diversity Program |
| Spring 2014 | ENAR Short Course (Functional Data Analysis: Techniques and Applications) |
| Summer 2013 | Grant Mentor, Columbia Summer Research Institute |
| 08/2013–Present | Biostatistics Faculty Liaison, Columbia University Biostatistics and Epidemiology Digital Education (CUBED) Master’s program |
| 01/2013–Present | Co-founder and Director, Functional Data Analysis Working Group (FDAWG) |

DOCTORAL ADVISEES

| | |
|-----------------|--|
| 2022 (Expected) | Angel Garcia de la Garza |
| 2021 | Patrick Hilden |
| 2019 | Julia Wrobel (First employment: Assistant Professor, Department of Biostatistics, University of Colorado Denver) |
| 2018 | Daniel Backenroth (First employment: Quantitative scientist, cancer genomics at Flatiron Health) |
| 2018 | Jihui Lee (First employment: Post Doctoral Researcher at Weill Cornell Department of Biostatistics) |
| 2016 | Yakuan Chen (First employment: Senior Inventive Scientist at AT&T Labs) |

MASTER'S ADVISEES

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|------|--|
| 2021 | Kevin Wongsodirdjo (Theory and Methods) |
| 2020 | Christian Pascual (Theory and Methods) |
| 2020 | Priyanka Srinivasan (Theory and Methods) |
| 2019 | Nadiya Pavlishyn (Theory and Methods) |
| 2016 | Yuexia Mei (Theory and Methods) |
| 2016 | Hanwei Yue (Theory and Methods) |
| 2015 | Xinyue Liu (Theory and Methods) |
| 2015 | Xiaoqi Lu (Theory and Methods) |
| 2015 | Yao Ma (Theory and Methods) |
| 2015 | Tianyi Sun (Theory and Methods) |
| 2015 | Julia Wrobel (Theory and Methods) |
| 2014 | Xinyu Hu (Theory and Methods) |
| 2014 | Zhi Pan (Theory and Methods) |
| 2014 | Guangwei Qui (Theory and Methods) |
| 2014 | Wenxi Tang (Theory and Methods) |
| 2014 | Madeline Vossbrinck (Theory and Methods) |

DOCTORAL EXAMINATION, ADVISORY, AND DEFENSE COMMITTEES

| | |
|------|--|
| 2020 | Juan Carlos Laria de la Cruz (Dissertation Reader) |
| 2020 | Yuan Gao (External Thesis Examiner) |
| 2019 | Andrea Duran (Dissertation Defense) |
| 2019 | Beth Rubenstein (Dissertation Defense) |
| 2018 | Sang il Kim (External Thesis Examiner) |
| 2018 | Javier Alvarez Libana (Dissertation Reader) |
| 2018 | Elizabeth Gibson (Oral Examination) |
| 2017 | Sharifa Barracks (Oral Examination and Dissertation Defense) |
| 2014 | Tianle Chen (Dissertation Defense) |
| 2014 | Xiaochen Cai (Oral Examination and Dissertation Defense) |
| 2013 | Adam Ciarleglio (Dissertation Defense) |

Publications

[†] indicates equal contribution

[‡] indicates graduate student under my supervision

ORIGINAL, PEER REVIEWED ARTICLES

- **J Goldsmith**, Y Sun, L Fried, J Wing, G W Miller, K Berhane (2021+). The Emergence and Future of Public Health Data Science. *Public Health Reviews*, accepted.
- C P Friel, C B Pascual, A T Duran, J Goldsmith, K M Diaz (2021+). Joint associations of occupational standing and occupational exertion with musculoskeletal symptoms in a US national sample. *Occupational and Environmental Medicine*, accepted.
- S Lovinsky-Desir, K H Jung, M Montilla, J Quinn, J Cahill, D Sheehan, F Perera, S N Chillrud, **J Goldsmith**, M Perzanowski, A Rundle, R Miller (2021). Locations of Adolescent

Physical Activity in an Urban Environment and their Associations with Air Pollution and Lung Function. *Annals of the American Thoracic Society*, **18** 84-92.

- D. Backenroth[‡], R. T. Shinohara, J. A. Schrack, and **J Goldsmith**(2020). Non-negative decomposition of functional count data. *Biometrics*, **76** 1273-1284.
- J Wrobel[‡], ML Martin, R Bakshi, PA Calabresi, M Elliot, D Roalf, RC Gur, RE Gur, RG Henry, G Nair, J Oh, N Papinutto, D Pelletier, Daniel Salo Reich, WD Rooney, TD Satterthwaite, W Stern, K Prabhakaran, NL Sicotte, RT Shinohara, **J Goldsmith** (2020). Intensity warping for multisite MRI harmonization. *NeuroImage*, **223** 117284.
- D Pagliaccio, JB Herbstman, F Perera, D Tang, J Goldsmith, BS Peterson, V Rauh, AE and Margolis (2020). Prenatal exposure to polycyclic aromatic hydrocarbons modifies the effects of early life stress on attention and Thought Problems in late childhood. *Journal of Child Psychology and Psychiatry*, **61** 1253-1265.
- J M Griffin, L Chiu, K M Axsom, R Bijou, K J Clerkin, P Colombo, M O Cuomo, J De Los Santos, J A Fried, **J Goldsmith**, M Habal, J Haythe, S Helmke, E M Horn, F Latif, S H Lee, E F Lin, Y Naka, J Raikhelkar, S Restaino, G T Sayer, H Takayama, K Takeda, S Teruya, V Topkara, E J Tsai, N Uriel, M Yuzefpolskaya, M A Farr, M S Maurer (2020). United network for organ sharing outcomes after heart transplantation for al compared to ATTR cardiac amyloidosis *Annals of the American Thoracic Society*, **34** e14028.
- L R Mitrani, J De Los Santos, E Driggin, R Kogan, S Helmke, **J Goldsmith**, A B Biviano, M S Maurer (2020). Anticoagulation with warfarin compared to novel oral anticoagulants for atrial fibrillation in adults with transthyretin cardiac amyloidosis: comparison of thromboembolic events and major bleeding *Amyloid*, **28** 30-34.
- H Rosenblum, A Masri, D L Narotsky, **J Goldsmith**, N Hamid, R T Hahn, S Kodali, T Vahl, T Nazif, O K Khaliq, S Bokhari, P Soman, J L Cavalcante, M S Maurer, A Castano Unveiling outcomes in coexisting severe aortic stenosis and transthyretin cardiac amyloidosis (2020). *European Journal of Heart Failure*, **23** 250-258.
- M He, P Kinney, C Chen, Q Sun, J Ban, J Wang, S Liu, **J Goldsmith**, M-A Kioumourtzoglou (2020). Short- and intermediate- term exposure to NO₂ and mortality: a multi-county analysis in China. *Environmental Pollution*, **261** 114165.
- E Driggin, S Helmke, J De Los Santos, S Teruya, S Guadalupe, **J Goldsmith**, M S Maurer (2020). Markers of nutritional status and inflammation in transthyretin cardiac amyloidosis: association with outcomes and the clinical phenotype. *Amyloid*, **27** 73-80.
- A. E. Margolis, J. Broitman, J. M. Davis, L. Alexander, A. Hamilton, Z. Liao, S. Banker, L. Thomas, G. A. Salum, K. Merikangis, **J Goldsmith**, T. Paus, K. Keyes, M. P. Milham (2020). Estimated prevalence of nonverbal learning disability among North American children and adolescents. *JAMA Network Open*, **3** e202551-e202551
- E. A. Gibson, Y. Nunez, A. Abuawad, A. R. Zota, S. Renzetti, Katrina L Devick, C. Gennings, **J. Goldsmith**, B. A. Coull, M.-A. Kioumourtzoglou (2019). An Overview of Methods to Address Distinct Research Questions on Environmental Mixtures: An Application to Persistent Organic Pollutants and Leukocyte Telomere Length *Environmental Health*, **18** 76.
- R. Kundert, **J. Goldsmith**, J. Veerbeek, J. W. Krakauer, and A. R. Luft (2019). What the proportional recovery rule is (and is not): methodological and statistical considerations. *Neurorehabilitation and Neural Repair*, **33** 876-887.

- A.G. Rundle, D. Gallagher, J. B. Herbstman, **J. Goldsmith**, D. Holmes, A. Hassoun, S. Oberfield, R. L. Miller, H. Andrews, E. M. Widen, L. A. Hoepner, and F. Perera (2019). Prenatal Exposure to Airborne Polycyclic Aromatic Hydrocarbons and Childhood Growth Trajectories from Age 5 to 14 Years. *Environmental Research*, **177** 108595.
- J. Lee[‡], G. Li, W. F. Christensen, G. Collins, M. Seeley, A. E. Bowden, D. T. Fullwood, and **J. Goldsmith**(2019). Functional Data Analyses of Gait Data Measured Using In-Shoe Sensors. *Statistics in Biosciences*, **11** 288-313.
- E. A. Gibson, **J. Goldsmith**, and M.-A. Kioumourtzoglou (2019). Complex Mixtures, Complex Analyses: an Emphasis on Interpretable Results. *Current Environmental Health Reports*, **6** 53-61.
- Y. Chen[‡], **J. Goldsmith**, and T. Ogden (2019). Functional data analysis of dynamic PET data. *Journal of the American Statistical Association*, **114** 595-609.
- J. Xu, M. Branscheidt, H. Schambra, L. Steiner, M. Widmer, J. Diedrichsen, **J. Goldsmith**, M. Lindquist, T. Kitago, A. R. Luft, J. W. Krakauer, P. A. Celnik, SMARTS Study Group (2019) Rethinking interhemispheric imbalance as a target for stroke neurorehabilitation. *Annals of neurology*, **85** 502-513.
- J. Wrobel[‡], V. Zipunnikov, J. Schrack, and **J. Goldsmith** (2019). Registration for exponential family functional data. *Biometrics*, **75** 48-57.
- R. Liu, R. C. Shelton, N. Eldred-Skemp, **J. Goldsmith**, and S. F. Suglia (2019) Early Exposure to Cumulative Social Risk and Trajectories of Body Mass Index in Childhood. *Childhood Obesity*, **15** 48-55.
- Y. Chen[‡], **J. Goldsmith**, and T. Ogden (2019). Nonlinear mixed-effects models for PET data. *Transactions on Biomedical Engineering*, **66** 881-891.
- D. Backenroth[‡], **J. Goldsmith**, M. D. Harran, J. C. Cortes, J. W. Krakauer, and T. Kitago (2018). Modeling motor learning using heteroskedastic functional principal components analysis. *Journal of the American Statistical Association*, **113** 1003-1015.
- J. A. Woo Baidal, K. Morel, K. Nichols, E. Elbel, N. Charles, **J. Goldsmith**, L. Chen, and E. M. Taveras (2018). Sugar-sweetened beverage attitudes and consumption during the first 1,000 days of life. *American Journal of Public Health*, **108**, 1659-1665.
- H. Rosenblum, A. Castano, J. Alvarez, **J. Goldsmith**, S. Helmke, M.S. Maurer (2018). TTR (Transthyretin) Stabilizers Are Associated With Improved Survival in Patients With TTR Cardiac Amyloidosis. *Circulation: Heart Failure*, **11** e004769.
- K. M. Diaz, D. J. Krupka, M. J. Chang, I. M. Kronish, N. Moise, **J. Goldsmith**, and J. E. Schwartz (2018). Wrist-based cut-points for moderate- and vigorous-intensity physical activity for the Actical accelerometer in adults. *Journal of Sports Sciences*, **36** 206-212.
- K. Diaz, **J. Goldsmith**, H. Greenlee, G. Strizich, Q. Qi, Y. Mossavar-Rahmani, D. Vidot , C. Buelnas, C. Brintz, T. Elfassy, L. Gallo, M. Daviglius, D. Sotres- Alvarez, and R. Kaplan (2017). Prolonged, uninterrupted sedentary behavior and glycemic biomarkers among US Hispanic/Latino adults *Circulation*, **136** 1362-1373.
- M. S. Maurer, E. Horn, A. Reyentovich, V. V. Dickson, S. Pinney, D. Goldwater, N. E. Goldstein, O. Jimenez, S. Teruya, **J. Goldsmith**, S. Helmke, M. Yuzefpolskaya, and G. R Reeves (2017). Can a Left Ventricular Assist Devices in Advanced Systolic Heart Failure Improve or Reverse the Frailty Phenotype? *Journal of the American Geriatrics Society*, **65** 2383-2390.

- J. C. Cortes[†], **J. Goldsmith**[†], M. Harran, J. Xu, N. Kim, A. R. Luft, P. Celnik, J. W. Krakauer, and T. Kitago (2017). A short and distinct time window for recovery of arm motor control after stroke revealed with a global measure of trajectory kinematics. *Neurorehabilitation and Neural Repair*, **31** 552-560.
- I. M. Kronish, K. M. Diaz, **J. Goldsmith**, N. Moise, and J. E. Schwartz (2017). Objectively measured adherence to physical activity guidelines after acute coronary syndrome. *Journal of the American College of Cardiology*, **9** 1205-1207.
- **J. Goldsmith** and J. E. Schwartz (2017). Variable Selection in the Functional Linear Concurrent Model. *Statistics in Medicine*, **36** 2237-2250.
- A. L. Wong, **J. Goldsmith**, A. D. Forrence, A. M. Haith, and J. W. Krakauer (2017). Reaction times can reflect habits rather than computations. *eLife*, **6** e28075.
- P. Reiss, **J. Goldsmith**, H. Shang, and T. Ogden (2017). Methods for scalar-on-function regression. *International Statistical Review*, **85** 228-249.
- J. Gertheiss, **J. Goldsmith**, and A.-M. Staicu (2017). A note on modeling sparse exponential-family functional response curves. *Computational Statistics and Data Analysis*, **105** 46-52.
- A. Castano, M. Haq, D. Narotsky, **J. Goldsmith**, R. L. Weinberg, R. Morgenstern, T. Pozniakoff, F. L. Ruberg, E. J. Miller, J. L. Berk, A. Dispenzieri, M. Grogan, G. Johnson, S. Bokhari, and M. S. Maurer (2016). Multicenter Study of Planar Technetium Pyrophosphate Cardiac Imaging: Predicting Survival for Patients With ATTR Cardiac Amyloidosis *JAMA Cardiology*, **1** 880-889.
- **J. Goldsmith** (2016). vbvs.concurrent: Fitting Methods for the Functional Linear Concurrent Model. *The Journal of Open Source Software*, **1**.
- S. T. Sorge, D. C. Hesdorffer, J. C. Phelan, M. R. Winawer, S. Shostak, **J. Goldsmith**, W. K. Chung, and R. Ottman (2016). Genetic causal attribution and depression in multiplex epilepsy families. *Epilepsia*, **57** 1643-1650.
- A. Wong, **J. Goldsmith**, and J. Krakauer (2016). A motor planning stage represents the shape of upcoming movement trajectories. *Journal of Neurophysiology*, **116** 296-305.
- **J. Goldsmith**, X. Liu[‡], J. S. Jacobson and A. Rundle (2016). New insights into activity patterns in children, found using functional data analyses. *Medicine & Science in Sports & Exercise*, **48** 1723-1729.
- J. Wrobel[‡], S.-Y. Park, A.-M. Staicu, and **J. Goldsmith** (2016). Interactive Graphics for Functional Data Analyses. *Stat*, **5** 108-118. [Article selected as “Exemplar paper”]
- Y. Chen[‡], **J. Goldsmith**, and T. Ogden (2016). Variable Selection in Function-on-Scalar Regression. *Stat*, **5** 88-101.
- **J. Goldsmith**, T. Kitago (2016). Assessing Systematic Effects of Stroke on Motor Control using Hierarchical Function-on-Scalar Regression. *Journal of the Royal Statistical Society: Series C*, **65** 215-236.
- C. B. Caminiti, D. C. Hesdorffer, S. Shostak, **J. Goldsmith**, S. T. Sorge, M. R. Winawer, J. C. Phelan, W. K. Chung, and R. Ottman (2016). Parents’ interest in genetic testing of their offspring in multiplex epilepsy families. *Epilepsia*, **57** 279-287.
- K. M. Diaz, D. J. Krupka, M. J. Chang, J. A. Schaffer, Y. Ma[‡], **J. Goldsmith**, J. E. Schwartz, K. W. Davidson (2016). Validation of the Fitbit One for physical activity measurement at an upper torso attachment site. *BMC Research Notes*, **9** 213.

- T. Kitago[†], **J. Goldsmith**[†], M. Harran, L. Kane, J. Berard, S. Huang, S. Ryan, P. Mazzoni, J. Krakauer, and V. Huang (2015). Robotic therapy for chronic stroke: general recovery of impairment or improved task-specific skill? *Journal of Neurophysiology*, **114** 1885-1894.
- **J. Goldsmith**, V. Zipunnikov, J. A. Schrack (2015). Generalized Multilevel Functional-on-Scalar Regression and Principal Component Analysis. *Biometrics*, **71** 344-353.
- M. Abdalla, **J. Goldsmith**, P. Muntner, K. M. Diaz, K. Reynolds, J. E. Schwartz, D. Shimbo, (2015). Is Isolated Nocturnal Hypertension a Reproducible Phenotype? *American Journal of Hypertension*, **29** 33-38.
- U. B. Schambra, **J. Goldsmith**, H. M. Schambra, K. Nunleya, S. Harirforoosh, Y. Liu , S. S. Moy (2015). Low and moderate prenatal ethanol exposure of mice during gastrulation or neurulation delays neurobehavioral development. *Neurotoxicology & Teratology*, **51** 1-11
- K. M. Diaz, D. J Krupka, M. J. Chang, J. Peacock, Y. Ma[‡], J. Goldsmith, J. E. Schwartz, K. W. Davidson (2015). Fitbit: An accurate and reliable device for wireless physical activity tracking. *International Journal of Cardiology*, **185** 138-140.
- C. Wang, S. Vine, A. Hsiao, A. Rundle, and **J. Goldsmith** (2015). Weight-Related Behaviors When Children are in School Versus on Summer Breaks: Does Income Matter? *Journal of School Health*, **85** 458-466.
- M. Sabatello, J. Phelan, D. Hesdorffer, S. Shostak, **J. Goldsmith**, S. Sorge, M. Winawer, W. Chung, R. Ottman (2015). Genetic Causal Attribution of Epilepsy and its Implications for Felt Stigma. *Epilepsia*, **56** 1542-1550.
- **J. Goldsmith**, L. Huang, C. M. Crainiceanu (2014). Smooth Scalar-on-Image Regression via Spatial Bayesian Variable Selection. *Journal of Computational and Graphical Statistics*, **23** 46-64.
- **J. Goldsmith**, F. Scheipl (2014). Estimator Selection and Combination in Scalar-on-Function Regression. *Computational Statistics and Data Analysis*, **70** 362–372.
- J. A. Schrack, V. Zipunnikov, **J. Goldsmith**, J. Bai, E. M. Simonsick, C. M. Crainiceanu, L. Ferrucci (2014). Assessing the “Physical Cliff”: Detailed Quantification of Aging and Physical Activity. *Journal of Gerontology: Medical Sciences*, **69** 973-979. [Article selected as “Editor’s Choice”]
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- **J. Goldsmith**, S. Greven, C. M. Crainiceanu (2013). Corrected Confidence Bands for Functional Data Using Principal Components. *Biometrics*, **69** 41–51.
- J. Gertheiss, **J. Goldsmith**, C. M. Crainiceanu, S. Greven (2013). Longitudinal Scalar-on-Functions Regression with Application to Tractography Data. *Biostatistics*, **14** 447–461.
- H. Sørensen, **J. Goldsmith**, L. Sangalli (2013). An Introduction with Medical Applications to Functional Data Analysis. *Statistics in Medicine*, **32** 5222-5240
- L. Huang, **J. Goldsmith**, P. T. Reiss, D. S. Reich, C. M. Crainiceanu (2013). Bayesian Scalar-on-Image Regression with Application to Association Between Intracranial DTI and Cognitive Outcomes. *NeuroImage*, **83** 210–223.
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- J. Bai, **J. Goldsmith**, B. S. Caffo, T. Glass, C. M. Crainiceanu (2012). Movelets: A Dictionary of Movement. *Electronic Journal of Statistics*, **6** 559–578.
- N. Louissaint, S. Nimmagadda, E. Fuchs, R. Bakshi, Y. Cao, L. Lee, **J. Goldsmith**, B. S. Caffo, Y. Du, K. King, F. Menendez, M. Torbenson, R. Wahl, C. W. Hendrix (2012). Distribution of Cell-free and Cell-associated HIV Surrogates in the Colon Following Simulated Receptive Anal Intercourse in Men Who Have Sex With Men. *Journal of Acquired Immune Deficiency Syndromes, Basic and Translational Science*, **59**(1) 10–17.
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- **J. Goldsmith**, B. S. Caffo, C. M. Crainiceanu, Y. Du, D. S. Reich, C. W. Hendrix (2011). Non-linear Tube Fitting for the Analysis of Anatomical and Functional Structures. *Annals of Applied Statistics*, **5** 337–363.
- **J. Goldsmith**, J. Bobb, C. M. Crainiceanu, B. S. Caffo, D. S. Reich (2011). Penalized Functional Regression. *Journal of Computational and Graphical Statistics*, **20** 830–851.
- **J. Goldsmith**, C. M. Crainiceanu, B. S. Caffo, D. S. Reich (2011). Penalized Functional Regression Analysis of White-Matter Tract Profiles in Multiple Sclerosis. *NeuroImage*, **57** 431–439.
- **J. Goldsmith**, M. P. Wand, C. M. Crainiceanu (2011). Functional Regression via Variational Bayes. *Electronic Journal of Statistics*, **5** 572–602.

- C. M. Crainiceanu, **J. Goldsmith** (2010). Bayesian Functional Data Analysis Using WinBUGS. *Journal of Statistical Software*, **32** 1– 33.
- **J. Goldsmith**, L. Koss (2009). Dynamical properties of the derivative of the Weierstrass elliptic function. *Involve*, **2** 267-288.

REVIEWS AND EDITORIALS

- P. T. Reiss and **J. Goldsmith**, (2017). Discussion of “Fast Approximate Inference for Arbitrarily Large Semiparametric Regression Models via Message Passing” by M. P. Wand. *Journal of the American Statistical Association*, **112** 161-164.
- G. Lovasi, **J. Goldsmith**, (2014). Invited commentary: Taking advantage of time-varying neighborhood environments. *American Journal of Epidemiology*, **180** 462-466
- **J. Goldsmith**, (2014). Review of “Analysis of Variance for Functional Data” by J-T Zhang. *Journal of the American Statistical Association*, **109** 449.

SOFTWARE

- F. Scheipl and J. Goldsmith (2016). tidyfun: Clean, wholesome, tidy fun with functional R package version 0.0.6, available on GitHub.
- J. Goldsmith, F. Scheipl, L. Huang, J. Wrobel, J. Gellar, J. Harezlak, M. W. McLean, B. Swihart, L. Xiao, C. Crainiceanu and P. T. Reiss (2016). refund: Regression with Functional Data. R package version 0.1-16, available on CRAN.
- J. Wrobel and J. Goldsmith, (2015). refund.shiny: Interactive plotting for functional data analyses. R package version 0.1, available on CRAN.

Presentations

- “tidyfun: A new framework for representing and working with function-valued data” CM-Statistics, online, *invited*. (12/2020)
- “Data Science Ethics: a View from Public Health”, Data Science Day, Columbia University Data Science Institute, *invited panel*. (09/2020).
- “The Emergence and Future of Data Science”, Ergon Professional Hub (online). (09/2020).
- “Considerations for ethical data science” and “Rigorous research using wearable devices”. University of Michigan Rogel Cancer Center, *virtual workshop*. (09/2020).
- “Data-driven chronotype discovery using functional data methods”, JSM 2020, online, *invited*. (08/2020).
- “The Three M’s: Meetings, Memberships, and Money!” ENAR 2020, Nashville / online, *invited panel*. (03/2020).
- “Functional Data Methods for Wearable Device Data.” BIRS Workshop, Banff, *invited*. (02/2020).
- “Ethics for Public Health Data Science.” Data Science for Public Health Summit, New York *invited panel*. (01/2020).
- “What the proportional recovery rule is (and is not): Methodological and statistical considerations.” CMStatistics 2019, London *invited*. (12/2019).

- “Proportional Recovery” American Society for Neurorehabilitation 2019, Chicago *Panel Debate*. (10/2019).
- “Registration for Exponential Family Functional Data.” JSM 2019, Denver, *invited*. (08/2019)
- “tidyfun” ICSA 2019, Raleigh, *invited*. (06/2019)
- “Models for Functional Responses.” Bill and Melinda Gates Foundation. (05/2019)
- “Variable Selection for the Concurrent Functional Linear Model.” ENAR 2019, Philadelphia, *invited*. (03/2019)
- “Modeling Motor Learning Using Heteroskedastic Functional Principal Components Analysis.” Department of Statistics, Rice University. (02/2019)
- “Modeling Motor Learning Using Heteroskedastic Functional Principal Components Analysis.” Department of Population Health Science and Policy Grand Rounds, Icahn School of Medicine at Mount Sinai. (02/2019)
- “Registration for Exponential Family Functional Data.” CMStatistics 2018, Pisa. (12/2018)
- “Registration for Exponential Family Functional Data.” Department of Statistics and Computational Biology, University of Rochester. (10/2018)
- “Functional data methods for wearable device data.” Ai4 / Healthcare, NYC. (11/2018)
- “Functional data methods for wearable device data.” Department of Biostatistics and Epidemiology, Drexel University. (10/2018)
- “Non-Negative Decomposition of Functional Count Data”, JSM 2018, Vancouver, *invited*. (08/2018)
- “Non-Negative Decomposition of Functional Count Data”, IBC 2018, Barcelona, *invited*. (06/2018)
- “Modeling Motor Learning Using Heteroskedastic Functional Principal Components Analysis.” Conference on Statistical Learning and Data Science, New York, *invited*. (06/2018)
- “Functional Data Analysis for High Dimensional Data.” Rockefeller University. (05/2018)
- “Modeling Motor Learning Using Heteroskedastic Functional Principal Components Analysis.” Department of Biostatistics, Emory. (04/2018)
- “Matrix Factorization Approaches to Analysis of Functional Count Data.” ENAR 2018, Atlanta, *invited*. (3/2018)
- “Modeling Motor Learning Using Heteroskedastic Functional Principal Components Analysis.” CMStatistics 2017, London, *invited*. (12/2017)
- “Modeling Motor Learning Using Heteroskedastic Functional Principal Components Analysis.” Department of Statistics, Pennsylvania State University. (09/2017)
- “New insights into activity patterns in children, found using functional data analyses.” JSM 2017, Baltimore, *topic contributed*. (08/2017)
- Discussion on “Recent developments for functional data exploration.” ISI WSC 2017, Marrakech. (07/2017)
- “Modeling Motor Learning Using Heteroskedastic Functional Principal Components Analysis.” ISI WSC 2017, Marrakech, *invited*. (07/2017)
- “Modeling Motor Learning Using Heteroskedastic Functional Principal Components Analysis.” SIS 2017, Florence, *invited*. (06/2017)

- “Registration for Exponential Family Functional Data.” International Workshop on Functional and Operatorial Statistics, Coruna, Spain, *invited*. (06/2017)
- “Modeling Motor Learning Using Heteroskedastic Functional Principal Components Analysis.” Division of Biostatistics & Epidemiology, Weill Cornell Medicine. (04/2017)
- “Modeling Motor Learning Using Heteroskedastic Functional Principal Components Analysis.” International Workshop on Advances in Functional Data Analysis, Madrid, Spain, *plenary presentation*. (03/2017)
- “Modeling Motor Learning Using Heteroskedastic Functional Principal Components Analysis.” ENAR 2017, Washington DC, *topic contributed*. (03/2017)
- “Modeling Motor Learning Using Heteroskedastic Functional Principal Components Analysis.” Department of Statistics, Columbia University. (02/2017)
- “New insights into activity patterns in children, found using functional data analyses.” Department of Epidemiology and Population Health, Albert Einstein College of Medicine. (02/2017)
- “Modeling Motor Learning Using Heteroskedastic Functional Principal Components Analysis.” ERCIM, Sevilla, *invited*. (12/2016)
- “Variable Selection for the Concurrent Functional Linear Model.” CRoNoS Workshop on FDA, Oviedo, Spain, *invited*. (08/2016)
- “Variable Selection for the Concurrent Functional Linear Model.” JSM, Chicago, *topic contributed*. (08/2016)
- Discussion on “Statistical Analysis of Wearable Sensor Data To Understand Human Movement and Activity.”, IBC, Victoria, British Columbia, *invited*. (06/2016)
- “Variable Selection for the Concurrent Functional Linear Model.” ICSA, Atlanta, *invited*. (06/2016)
- “Kinematic data in motor control experiments.” ENAR 2016, Austin, *invited*. (03/2016)
- “Kinematic data in motor control experiments.” Department of Biostatistics, University of Texas Health Science Center at Houston. (02/2016)
- “Variable Selection for the Concurrent Functional Linear Model.” ERCIM, London, *invited*. (12/2015)
- “Generalized Multilevel Functional-on-Scalar Regression and PCA.” Department of Bioinformatics, Columbia University. (12/2015)
- “Kinematic data in motor control experiments.” Department of Biostatistics, University of Washington. (10/2015)
- “Generalized Multilevel Functional-on-Scalar Regression and PCA + Visualization.” JSM 2015, Seattle. (07/2015)
- “Kinematic data in motor control experiments + Visualization.” ISI WSC 2015, Rio de Janiero. (07/2015)
- “Generalized Multilevel Functional-on-Scalar Regression and PCA + Visualization.” ISI WSC 2015, Rio de Janiero. (07/2015)
- “Generalized Multilevel Functional-on-Scalar Regression and PCA + Visualization.” BIRS Workshop, Banff. (07/2015)

- “Generalized Multilevel Functional-on-Scalar Regression and PCA.” ENAR 2015, Miami, *invited*. (03/2015)
- “Generalized Multilevel Functional-on-Scalar Regression and PCA.” ERCIM, Pisa, *invited*. (12/2014)
- “Using Functional Data Methods to Assess Covariate Effects on Daily Activity Patterns.” Gerontological Society of America Annual Meeting, Washington DC. *invited symposium*. (11/2014)
- “Generalized Multilevel Functional-on-Scalar Regression and PCA.” Department of Biostatistics, University of Minnesota. (09/2014)
- “Smooth Scalar-on-Image Regression via Spatial Bayesian Variable Selection.” JSM 2014, Boston, *topic contributed*. (08/2014)
- “Generalized Multilevel Functional-on-Scalar Regression and Principal Component Analysis.” Department of Statistics, University of Pennsylvania. (04/2014)
- “Assessing Systematic Effects of Stroke on Motor Control using Hierarchical Function-on-Scalar Regression.” Department of Statistics, Columbia University. (03/2014)
- “Assessing Systematic Effects of Stroke on Motor Control using Hierarchical Function-on-Scalar Regression.” ENAR 2014, Baltimore, *invited*. (03/2014)
- “Corrected Confidence Intervals for Functional Data Using Principal Components.” ERCIM, London, *invited*. (12/2013)
- “Assessing Systematic Effects of Stroke on Motor Control using Hierarchical Function-on-Scalar Regression.” ERCIM, London, *invited*. (12/2013)
- “Bayesian Penalized Function-on-Scalar Regression for Longitudinal Accelerometry Data.” Division of Biostatistics in the Department of Psychiatry, Columbia University. (09/2013)
- “Assessing Systematic Effects of Stroke on Motor Control using Hierarchical Function-on-Scalar Regression.” Department of Biostatistics, Johns Hopkins University. (09/2013)
- “Assessing Systematic Effects of Stroke on Motor Control using Hierarchical Function-on-Scalar Regression.” Department of Statistics, Seoul National University. (08/2013)
- “Estimating Energy Expenditure from Heart Rate and Activity Counts: a Bayesian Approach.” IASC Seoul, South Korea, *invited*. (08/2013)
- “Assessing Systematic Effects of Stroke on Motor Control using Hierarchical Function-on-Scalar Regression.” JSM, Montreal, *Topic Contributed*. (08/2013)
- “Estimating Energy Expenditure from Heart Rate and Activity Counts: a Bayesian Approach.” ICAMPAM, Amherst, MA, *invited*. (06/2013)
- “Bayesian Penalized Function-on-Scalar Regression for Longitudinal Accelerometry Data.” SRCOS, Nashville, TN, *invited*. (06/2013)
- “Smooth Scalar-on-Image Regression.” University of Miami Spatial Statistics Conference, Miami, FL, *invited*. (12/2012)
- “Longitudinal Penalized Functional Regression.” Annual Conference of the German and Austrian Statistical Associations, Vienna, Austria, *invited*. (09/2012)
- “A Modular Approach to Functional Regression”. Annual Conference of the International Society for Clinical Biostatistics, Bergen, Norway, *invited*. (08/2012)

- “Fast Joint Functional Regression Modeling via Variational Bayes”. JSM 2012, San Diego, *invited*. (07/2012)
- “Corrected Confidence Intervals for Functional Data Using Principal Components”. JSM 2012, San Diego, *topic contributed*. (07/2012)
- “Movelets: A Dictionary of Movement”. Interface 2012, *invited*. (05/2012)
- “Corrected Confidence Intervals for Functional Data Using Principal Components”. ENAR 2012, Washington DC, *contributed*. (04/2012)
- “Longitudinal Penalized Functional Regression”. JSM 2011, Miami, *contributed*. (08/2011)
- “Cross-Sectional and Longitudinal Penalized Functional Regression”. Ludwig-Maximilians-University, *invited*. (06/2011)
- “Cross-Sectional and Longitudinal Penalized Functional Regression”. Interface 2011, *invited by Editor of JCGS*. (06/2011)
- “Longitudinal Penalized Functional Regression”. ENAR 2011, Miami, *invited*. (03/2011)
- “Non-linear Tube-fitting and Penalized Functional Regression in Diffusion Tensor Imaging”. National Institutes of Health, Translational Neuroradiology Unit, *invited*. (03/2011)
- “Penalized Functional Regression”. Joint Statistical Meetings 2010, Vancouver, *topic contributed*. (08/2010)
- “Penalized Functional Regression”. University of Wollongong, Australia, *invited*. (06/2010)
- “Medical Imaging and Biostatistics”. Dickinson College, Department of Mathematics and Computer Science, *invited*. (04/2010)