Philip Andrew White

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Education

- Doctor of Philosophy: Statistical Science; Duke University; 2019
  - Dissertation: Topics in Bayesian Spatiotemporal Prediction of Environmental Exposure
  - Committee: Alan Gelfand (chair), Fan Li (co-chair), Colin Rundel, and Ben Goldstein
- Master of Science: Statistics; Brigham Young University; 2015
  - Thesis: Bayesian Gaussian Process Model for Antarctic Surface Mass Balance and Proposing New Field Measurements
  - Committee: C. Shane Reese (chair), William F. Christensen, and Shannon Tass
- Bachelor of Science: Applied Physics; Brigham Young University; 2014
  - Graduated *Magna Cum Laude*; speaker at college graduation
  - Senior Thesis: Bayesian Model for Antarctic Surface Mass Balance
  - Minors: Mathematics, Scandinavian Studies

Professional Experience

- Assistant Professor; Brigham Young University; 2019 – Present
- Data Science Intern: Disease Risk Modeling; The Climate Corporation; 2018

Peer-Reviewed Publications

- M. Gruen, **P. White**, and B. Hare (2020+), "Do Dog Breeds Differ in Pain Sensitivity? Veterinarians and the Public Believe They Do," *PLoS ONE*, 15(3): e0230315. link.
- **P. White**, C.S. Reese, W. Christensen, and S. Rupper (2019), "A Model for Antarctic Surface Mass Balance and Ice Core Site Selection," *Environmetrics*, Volume 30, Issue 8, e2579. link.
- **P. White** and E. Porcu (2019), "Towards a Complete Picture of Stationary Covariance Functions on Spheres Cross Time," *Electronic Journal of Statistics*, Vol. 13, No. 2, 2566-2594. link.
- **P. White**, A. Gelfand, E. Rodrigues, and G. Tzintzun (2019), "Pollution State Modeling for Mexico City," *Journal of the Royal Statistical Society - Series A*, Volume 182, Issue 3, 1039-1060. link.
- **P. White** and E. Porcu (2019), "Nonseparable Covariance Models on Circles Cross Time: A Study of Mexico City Ozone," *Environmetrics*, Volume 30, Issue 5, e2558. link
- **P. White**, C. Berrett, S. Tass, and M. Findlay (2019), "Modeling Efficiency of Foreign Aid Allocation in Malawi," *The American Statistician*, Volume 30, Issue 5, 385-399. link
- **P. White**, A. Gelfand, and T. Utlaut (2017), "Prediction and model comparison for areal unit data," *Spatial Statistics*, Volume 22, Part 1, 89-106. link
- J. S. Colton, D. Meyer, K. Clark, D. Craft, J. Cutler, T. Park, and **P. White** (2012), "Long-Lived electron spins in a modulation doped (100) GaAs quantum well," *Journal of Applied Physics*, Volume 112, Issue 8, 084307. link

Under Review

- **P. White** and A. Gelfand, "Generalized Evolutionary Point Processes: Model Specifications and Model Comparison." link
- **P. White** and A. Gelfand, "Multivariate Functional Data Modeling with Time-varying Clustering." link
- **P. White**, D. Keeler, and S. Rupper, "Hierarchical Spatial Modeling of Monotone West Antarctic Snow Density Curves." link
- E. Porcu, G. Cleanthous, A. Georgiadis, **P. White**, and Alfredo Alegria, "Random Fields on the Hypertorus: Covariance Modeling, Regularities, and Approximations."
- *A. Alegría, P.G. Bissiri, G. Cleanthous, E. Porcu, and **P. White**, "Multivariate Isotropic Random Fields on Spheres: Nonparametric Bayesian Modeling and L^p-Fast Approximations."
- *G. Cleanthous, E. Porcu, and **P. White**, "Regularity and Approximation of Gaussian Random Fields Evolving Temporally over Two-Point Homogeneous Spaces."
  *Under the request of a coauthors, the authors are listed in alphabetical order.

Other Publications

- P. White (2019), "Topics in Bayesian Spatiotemporal Prediction of Environmental Exposure," Ph.D. Dissertation, Duke University.
- P. White (2015), "Bayesian Gaussian Process Model for Antarctic Accumulation and Proposing New Field Measurement," Masters Project, Brigham Young University.
- P. White (2014), "ORCA final report," *2014 Journal of Undergraduate Research* [Online], Brigham Young University.
- P. White (2014), "Quantifying Climate Change: Bayesian Model for Antarctic Surface Mass Balance," Senior Thesis, Brigham Young University.

Posters and Presentations

- "Multivariate Functional Data Modeling with Time-varying Clustering"
  - New England Statistics Symposium (2019) – Contributed Talk
  - Joint Statistical Meetings (2019) – Contributed Talk
- "Pollution State Modeling for Mexico City"
  - ASA ENVR Workshop - Statistics for the Environment: Research, Practice and Policy (2018) – Contributed Poster
- "Nonseparable Covariance Models on Circles Cross Time: A Study of Mexico City Ozone"
  - Brigham Young University (2018) – Invited Talk
  - RAND (2018) – Invited Talk
  - Los Alamos National Labs (2018) – Invited Talk
  - Facebook Research Labs (2018) – Invited Talk
  - International Conference on Advances in Interdisciplinary Statistics and Combinatorics (AISC) (2018) – Contributed Talk
- "Prediction and Model Comparison for Areal Unit Data"
  - Society of Duke Fellows (2017) – Invited Talk
- "A Model for Antarctic Surface Mass Balance and Ice Core Site Selection,"
  - American Geophysical Union (2017), New Orleans, LA. – Contributed Poster
  - Conference on Data Analysis (2014), Poster, Santa Fe, NM. – Poster

Courses Taught

- Professor
  - Brigham Young University
    - Statistics 330 (Introduction to Regression): Winter 2020
    - Statistics 641 (Probability Theory & Mathematical Statistics 1): Fall 2019
    - Swedish 201: Winter 2012
    - Swedish 202: Fall 2011, Fall 2012
  - Duke University
    - Statistics 111 (Probability and Statistics): Summer I 2017
- Teaching Assistant
  - Duke University
    - Statistics 322/522 (Design of Surveys and Causal Studies): Spring 2019
    - Statistics 944 (Spatial Statistics): Fall 2018
    - Statistics 444/644 (Spatio-temporal Modeling): Spring 2018, Fall 2018
    - Statistics 532 (Theory of Inference): Fall 2017
    - Statistics 111 (Probability and Statistics): Spring 2017

External Funding

- Not Funded
  - "Analysis Methods for Multivariate Point Patterns on Linear Networks," submitted to the National Science Foundation (Role: Co-PI, Amount: $310,946), submitted 2019.
  - "Quantifying Snow and Glacier Response to Climate and Aerosol Forcings in High Mountain Asia," submitted to the National Aeronautics and Space Administration (Role: PI for BYU portion; Amount: $256,328), submitted 2019.

Internal Funding

- Funded
  - "The Role of Temperature Variation for Reconstructing the Advance and Retreat of Glacial Ice using Thermal and Radar Imaging," Brigham Young University Interdisciplinary Research (IDR) Origination Awards, 2020 (Role: Co-PI, Amount: $119,910).

Fellowships, Scholarships, and Awards

- Professor
  - 2019 Wiley-TIES Best Environmetrics Paper Award for "A model for Antarctic Surface mass balance and ice core site selection," (Amount: Travel award and $750).
  - STATMOS Workshop - Young Researcher Travel Award, 2019 (Amount: $1,500)
- Student
  - James B. Duke Fellowship Recipient, Duke University, 2015-2019 (Amount: $20,000)
  - ENVR Workshop - Statistics for the Environment: Research, Practice and Policy, Student travel award, 2018 (Amount: $1,500)
  - Department of Statistical Science TA of the Year, 2018 (Amount: $1,500)
  - Conference on Data Analysis Student Travel Award, 2014 (Amount: $1,000)

Statistical Consulting Experience

- Arbinger Institute; Farmington, Utah; 2019 – Present
- Department of Clinical Sciences, North Carolina State University, College of Veterinary Medicine; Raleigh, NC; 2019 – Present
- Hare Lab, Duke University, Department of Evolutionary Anthropology; Durham, NC; 2017 – 2019

Professional Service

- Student Mentoring

Year Graduated	Student	Role
2021	Daniel Sheanshang	Research Mentor
2020	Maryanne Allen	Research Mentor
2020	Derik Mehl	Research Mentor
2020	Shelby Taylor	MS Committee Member

- Departmental Service
  - Comprehensive Exam Committee (Aug 2019 - Present)
  - Seminar Co-Coordinator (Jul 2019 - Present)
- Peer Review For:
  - 2019: Environmetrics; Journal of Agricultural, Biological and Environmental Statistics; Spatial Statistics; Stochastic Environmental Research and Risk Assessment
  - 2018: Environmetrics

Memberships

- American Statistical Association: 2014-Present
- International Society for Bayesian Analysis: 2017-Present
- American Geophysical Union: 2017-Present