Parker Hinckley Holzer

Last Updated: March 13, 2021

Contact Information

Department of Statistics & Data Science
Yale University
New Haven, CT 06511

Phone: 801-882-4528
E-mail: parker.holzer@yale.edu

Education

Doctorate of Philosophy, Statistics & Data Science, Expected 2022
Yale University, New Haven, Connecticut, USA
Advisor: John Lafferty

Master of Arts, Statistics, 2020
Yale University, New Haven, Connecticut, USA
Advisor: Jessi Cisewski-Kehe

Bachelor of Science, Mathematics, 2017
University of Utah, Salt Lake City, Utah, USA

Bachelor of Science, Applied Physics, 2017
University of Utah, Salt Lake City, Utah, USA
Research Advisor: Inese Ivans

Research Interests

Astrostatistics, nonparametric estimation, machine learning, applications to physical sciences

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Programming Experience

- **Proficient in:** Python, R, LaTex
  - R packages: *rvmethod*
- **Experienced in:** C^{++}, Spark, TensorFlow, SQL

Research Publications

- **P. Holzer**, J. Cisewski-Kehe, L. Zhao, E. Ford, C. Gilbertson, D. Fischer, "A Stellar Activity F-statistic for Exoplanet Surveys (SAFE)" (Submitted)
- J. Katz, **P. H. Holzer**, H. J. Kliman, "Genetics, Not the Uterine Environment, Drive the Formation of Trophoblast Inclusions: Insights from a Twin Study" (Submitted)
- **P. Holzer**, J. Cisewski-Kehe, D. Fischer, L. Zhao, "A Hermite-Gaussian Based Radial Velocity Estimation Method" (Submitted)
- Kliman, H. J., Firestein, M. R., Hofmann, K. M., Milano, K. M., **Holzer, P. H.,** and others, "Trophoblast Inclusions in the Human Placenta: Identification, Characterization, Quantification, and Interrelations of Subtypes" (2021), *Placenta*, Vol. 103, pgs. 172-176
- Souto, D., Cunha, K., Smith, V.V., Prieto, C.A., García-Hernández, D.A., Pinsonneault, M., **Holzer, P.**, Frinchaboy, P., Holtzman, J., Johnson, J.A. and Jönsson, H., "Chemical Abundances of Main-sequence, Turnoff, Subgiant, and Red Giant Stars from APOGEE Spectra. I. Signatures of Diffusion in the Open Cluster M67" (2018), *The Astrophysical Journal*, 857(1), p.14.
- Blanton, M.R., Bershady, M.A., Abolfathi, B., Albareti, F.D., Prieto, C.A., Almeida, A., Alonso-García, J., Anders, F., Anderson, S.F., Andrews, B., Aquino-Ortíz, E., **Holzer, P.**, and others, "Sloan digital sky survey IV: Mapping the Milky Way, nearby galaxies, and the distant universe" (2017), *The Astronomical Journal*, 154(1), p.28.
- **P. Holzer**, I. Ivans, J. Galbraith-Frew, T. Anderton, and the APOGEE Team, "The Chemical Composition of Planet-Harboring Stars in M67" (2016) *American Physical Society April Meeting*, abstract # L1.035
- **Holzer, P.** and Ivans, I., "Chemical Compositions of Planet-Harboring Stars in M67" (2015), *The University of Utah Undergraduate Research Journal*, Volume 1 2016, pg. 1444
- **Holzer, P.** and Ivans, I. I., "Solar Abundances in the Open Cluster M67" (2014), *Bulletin of the American Physical Society*, Volume 59, Number 11, F1.36

Teaching Experience

Instructor (full course responsibility)

- Department of Statistics & Data Science, Yale University
  - Introduction to Statistics (S&DS 107), Summer 2019

Teaching Assistant

- Department of Statistics & Data Science, Yale University
  - Data Mining & Machine Learning (S&DS 365/565), Fall 2018, Fall 2020
  - YData: An Introduction to Data Science (S&DS 123/523), Spring 2019
  - Introductory Machine Learning (S&DS 355/555), Fall 2019
  - Data Analysis (S&DS 361/661), Spring 2020

Supplemental Instruction Leader

- Department of Physics & Astronomy, University of Utah
  - Physics for Scientists & Engineers I (PHYS 2210), Fall 2015, Spring 2016, Fall 2016
  - Physics for Scientists & Engineers II (PHYS 2220), Spring 2017

Honors and Awards

- *Excellence in Teaching Award*, University of Utah Supplemental Instruction, May 2017
- *Best Overall Talk Award*, University of Utah Department of Physics & Astronomy Research Symposium, "Inhomogeneous Chemical Compositions of Dwarf Stars in the Open Cluster M67" (Contributed Talk), August 2016
- *Physics & Astronomy Honorable Mention*, Utah Intel State Science Fair Competition, "The Parametric Positions of Objects on Astronomical Bodies" (Poster), January 2011

Professional Experience

- *STAtistical Methods for the Physical Sciences (STAMPS) public webinar* "Discovering Exoplanets With Hermite-Gaussian Linear Regression" (Invited Talk), Carnegie Mellon University, Pittsburgh, Pennsylvania, September 2020
- *STAtistical Methods for the Physical Sciences group meeting* "Discovering Exoplanets With Hermite-Gaussian Linear Regression" (Invited Talk), Carnegie Mellon University, Pittsburgh, Pennsylvania, August 2020
- *2020 Joint Statistical Meeting*, "A Hermite Gaussian Based Radial Velocity Estimation Method" (Contributed Talk), August 2020
- *XSEDE HPC Workshop: Big Data* (Participant), Yale University, New Haven, Connecticut, October 2019
- *Day of Data Science* (Co-host), Yale University, New Haven, Connecticut, October 2018
- *Emerging Research in Exoplanet Science Conference* (Participant), Pennsylvania State University, State College, Pennsylvania, June 2018
- *University of Utah Department of Physics & Astronomy Research Symposium*, "Inhomogeneous Chemical Compositions of Dwarf Stars in the Open Cluster M67" (Contributed Talk), University of Utah, Salt Lake City, Utah, August 2016
- *Sloan Digital Sky Survey IV Collaboration Meeting*, "Inhomogeneous Chemical Compositions of Dwarf Stars in the Open Cluster M67" (Contributed Talk), University of Wisconsin, Madison, Wisconsin, June 2016
- *Utah Conference of Undergraduate Research*, "Inhomogeneous Chemical Compositions of Dwarf Stars in the Open Cluster M67" (Poster), University of Utah, Salt Lake City, Utah, March 2016
- *Utah Research on Capital Hill*, "Inhomogeneous Chemical Compositions of Dwarf Stars in the Open Cluster M67" (Poster), Utah State Capital, Salt Lake City, Utah, January 2016
- *University of Utah Department of Physics & Astronomy Research Symposium*, "The Chemical Composition of Planet-Harboring Stars in M67" (Contributed Talk), University of Utah, Salt Lake City, Utah, August 2015
- *American Physics Society Four Corners Meeting*, "Solar Abundances in the Open Cluster M67" (Poster), Utah Valley University, Orem, Utah, 2014
- *Utah Intel State Science Fair Competition*, "The Parametric Positions of Objects on Astronomical Bodies" (Poster), Weber State University, Ogden, Utah, January 2011