

Shu Wang

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EDUCATION

- Ph.D. in Biostatistics** Apr 2019
Department of Biostatistics, University of Pittsburgh, US
Dissertation: *Clustering Methods with Variable Selection for Data with Mixed Variable Types or Limits of Detection*
- M.S. in Biostatistics** May 2015
Department of Biostatistics, Columbia University, US
- B.S. in Biotechnology** Jul 2013
School of Life Sciences, Beijing Normal University, China

RESEARCH INTEREST

My research interests include methodology development in unsupervised machine learning (both Bayesian and non-Bayesian), application in clinical phenotype identification, and phase 1 clinical trial design. I also have a lot of collaboration experiences working on observational studies.

PROFESSIONAL EXPERIENCE

- Research Assistant Professor** May 2019 - Present
University of Florida Health Cancer Center & Department of Biostatistics, University of Florida
- Biostatistics Internship** Summer 2017
Bayer Healthcare Pharmaceuticals
- Graduate Student Researcher** Sep 2015 - Apr 2018
Department of Critical Care Medicine, University of Pittsburgh

PUBLICATIONS

*: co-first author

1. Farhadfar, N., Leather, H. L., **Wang, S.**, Burton, N., Gatell, V. I., Itzler, R., ... & Wingard, J. R. (2021). Severity of Acute GVHD and Associated Healthcare Resource Utilization, Cost and Outcomes. *Transplantation and Cellular Therapy*.
2. Development and pilot testing of a conversation aid to support the evaluation of patients with thyroid nodules, accepted
3. **Wang, S.**, Yabes, J. G., & Chang, C. H. (2021). Hybrid Density- and Partition-Based Clustering Algorithm for Data With Mixed-Type Variables. *Journal of Data Science*, 19(1), 15-36. doi:10.6339/21-JDS996
4. Alpert, J. M., **Wang, S.**, Bylund, C. L., Markham, M. J., Bjarnadottir, R. I., Lee, J. H., ... & Salloum, R. G. (2020). Improving secure messaging: A framework for support, partnership &

- information-giving communicating electronically (SPICE). *Patient Education and Counseling*.
5. Adambekov, S., Lopa, S., Edwards, R. P., Lemon, L., **Wang, S.**, Taylor, S. E., ... & Linkov, F. (2020). Survival and recurrence after intraperitoneal chemotherapy use: Retrospective review of ovarian cancer hospital registry data. *Cancer Medicine*.
 6. Carbajal-Mamani, S. L., Dideban, B., Schweer, D., Balavage, K. T., Chuang, L., Wang, Y., **Wang, S.**, ... & Cardenas-Goicoechea, J. (2020). Incidence of venous thromboembolism after robotic-assisted hysterectomy in obese patients with endometrial cancer: do we need extended prophylaxis?. *Journal of Robotic Surgery*, 1-6.
 7. Jia, Y., Chang, C. C. H., Hughes, T. F., Jacobsen, E., **Wang, S.**, Berman, S. B., ... & Ganguli, M. (2020). Predictors of Dementia in the Oldest Old: A Novel Machine Learning Approach. *Alzheimer Disease & Associated Disorders*, 34(4), 325-332.
 8. Peerapornratana, S., Priyanka, P., **Wang, S.**, Smith, A., Singbartl, K., Palevsky, P. M., ... & ProCESS and ProGRess-AKI Investigators. (2020). Sepsis-Associated Acute Kidney Disease. *Kidney International Reports*.
 9. Seymour, C. W., Kennedy, J. N., **Wang, S.**, Chang, C. C. H., Elliott, C. F., Xu, Z., ... & Angus, D. C. (2019). Derivation, validation, and potential treatment implications of novel clinical phenotypes for sepsis. *JAMA*, 321(20), 2003-2017.
 10. Li, S., **Wang, S.**, Priyanka, P., & Kellum, J. A. (2019). Acute Kidney Injury in Critically Ill Patients After Noncardiac Major Surgery: Early Versus Late Onset. *Critical Care Medicine*, 47(6), e437-e444.
 11. Li, S., **Wang, S.**, Murugan, R., Al-Khafaji, A., Lebovitz, D. J., Souter, M., ... & Kellum, J. A. (2018). Donor biomarkers as predictors of organ use and recipient survival after neurologically deceased donor organ transplantation. *Journal of Critical Care*, 48, 42-47.
 12. Fiorentino, M.*, Tohme, F. A.*, **Wang, S.**, Murugan, R., Angus, D. C., & Kellum, J. A. (2018). Long-term survival in patients with septic acute kidney injury is strongly influenced by renal recovery. *PLoS one*, 13(6), e0198269.
 13. Le Meur, N., Grammatico-Guillon, L., **Wang, S.**, & Astagneau, P. (2016). Health insurance database for post-discharge surveillance of surgical site infection following arthroplasty. *Journal of Hospital Infection*, 92(2), 140-146.

Submitted/Under revision

14. **Wang, S.**, Sayour, E., Lee, JH. Evaluation of Phase I Clinical Trial Designs for Combinational Agents along with Guidance based on Simulation Studies (submitted)
15. Mailhot, B. R., **Wang, S.**, ... & Bradley, A. J. Evaluating Regional Nodal Irradiation Allocation and Association with Oncological Outcomes in NSABP B-18, B-27, B-40, and B-41 (submitted)
16. Swift, S. L., **Wang, S.**, Chang C. H., ... & Myaskovsky, L. Do Social Determinants of Health Predict Patient Reported Outcomes in Kidney Failure Patients Being Evaluated for Transplant? (submitted)
17. Zhao, H., Kennedy, J. N., **Wang, S.**, ... & Seymour, C.W. Revising Host Phenotypes of Sepsis Using Microbiology. (submitted)
18. Cardenas-Goicoechea, J., Shoraka, M., **Wang, S.**, ... & Han., H. Oncologic outcomes in older women with endometrial carcinoma (≥ 70 years) (submitted)

AWARDS

University of Pittsburgh

- Delta Omega Membership Apr 2019
- Best poster presentation in Biostatistics Student Research Day Feb 2019
- Second place of departmental award in Dean's Day poster competition Apr 2017
- The best performance on the Ph.D. Qualifying Exam in Department of Biostatistics Jun 2016

TEACHING EXPERIENCE

Lecturer, University of Florida

Department of Biostatistics, University of Florida

- PHC 6937 Frontiers in Biostatistics Apr 2020

Teaching Assistant/Teaching Fellow

Department of Biostatistics, University of Pittsburgh

- BIOST 2063 Bayesian Data Science Jan - Apr 2019
- BIOST 2050 Longitudinal and Clustered Data Analysis Aug - Oct 2018

Institute for Clinical Research and Education, University of Pittsburgh

- CLRES 2005 Computer Methods in Clinical Research Jul 2018
- CLRES 2020 Biostatistics - Statistical Approaches in Clinical Research Jul - Aug 2018

Department of Biostatistics, Columbia University

- BIST P8120 Analysis of Categorical Data Jan - May 2015

PRESENTATIONS

Invited Presentation

- International Chinese Statistical Association (ICSA), Houston, Texas (virtual) Dec 2020
A Bayesian Finite Mixture Model-Based Clustering Method with Variable Selection for Identifying Disease Phenotypes
- University of Florida Health Cancer Center, Gainesville, FL Dec 2018
Clustering Methods for Data with Mixed-types Variables or Limits of Detection
- International Chinese Statistical Association (ICSA), New Brunswick, NJ Jun 2018
Cure Model in Cancer Immunotherapy

Contributed Presentation

- Oral, Eastern North American Region (ENAR), Baltimore, Maryland (virtual) Mar 2021
A Simulation Study Evaluating Phase I clinical trial designs for combinational agents
- Oral, Eastern North American Region (ENAR), Nashville, Tennessee (virtual) Mar 2020
A Bayesian Finite Mixture Model-based Clustering Method with Variable Selection for Identifying Disease Phenotypes
- Poster, ASA Pittsburgh Chapter Spring Banquet, Pittsburgh, PA Apr 2019
A Two-Step Clustering Algorithm for Data with Mixed-Types of Variables
- Poster, Eastern North American Region (ENAR), Philadelphia, PA Mar 2019
A Two-Step Clustering Algorithm for Data with Mixed-Types of Variables
- Poster, Biostatistics Student Research Day, University of Pittsburgh Feb 2019
A Two-Step Clustering Algorithm for Data with Mixed-Types of Variables
- Poster, Joint Statistical Meeting (JSM), Vancouver, Canada Jul 2018
An Application of Clustering Method on EHR Data Phenotyping and Prediction

- Oral, Eastern North American Region (ENAR), Atlanta, GA Mar 2018
An Improved Dissimilarity Measure for Clustering Data with Mixed Data Types - A Two Stage Clustering Algorithm
- Poster, Dean's Day Competition, GSPH, University of Pittsburgh Apr 2017
Renal Recovery at Hospital Discharge is Associated with Long-term Survival in Patients with Septic Acute Kidney Injury
- Poster, Graduation Poster Session, Department of Biostatistics, Columbia University May 2015
Simulation Based Sample Size Calculation in Adaptive Intervention Comparison

CONFERENCE SERVICE

- Eastern North American Region (ENAR), Baltimore, Maryland (virtual) Mar 2021
Chair for Session 113: Diagnostic, Screening and Hypothesis Tests

UNIVERSITY SERVICE

University of Florida Health Cancer Center

- Member of Data Integrity and Safety Committee (DISC) Jun 2019 - Jul 2020
- Member of Scientific Review and Monitoring Committee (SRMC) Jul 2020 - present

STUDENT ADVISING

University of Florida

- Haoting Han, MS, Biostatistics 2019 - 2021
- Karthik Akinapelli, online MS, Biostatistics 2019 - present
- Jessica Potts, online MS, Biostatistics 2019 - present
- Dayana Rodezno, online MS, Biostatistics 2019 - present

PROFESSIONAL MEMBERSHIP

- American Statistical Association (ASA)
- Eastern North American Region International Biometric Society
- International Chinese Statistical Association (ICSA)