

JUE HOU, PHD

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ACADEMIC APPOINTMENT

University of Minnesota, School of Public Health *Minneapolis, MN*
Assistant Professor of Biostatistics *2022-now*

Harvard T.H. Chan School of Public Health *Boston, MA*
Post-doctoral Fellow in Department of Biostatistics *2019-2022*
Mentors: Tianxi Cai, Rajarshi Mukherjee, James Robins, Andrea Rotnitzky.

EDUCATION

University of California San Diego *2019*
Ph.D. in Mathematics with Specialization in Statistics
Advisors: Ronghui (Lily) Xu and Jelena Bradić

University of Illinois at Urbana-Champaign *2013*
M.S. in Statistics

Fudan University *2011*
B.S. in Mathematics

WORK EXPERIENCE

Veterans Health Administration *Boston, MA*
Contractor *2020-2022*
WOC *2022-now*

Northwestern University Feinberg School of Medicine *Chicago, IL*
Research Assistant *2013-2015*
Mentor: Lei Liu.

AWARD

The Program in Quantitative Genomics Postdoc Travel Award, *Harvard Medical School*, 2020

ICSA New Researcher Award, *the 11th ICSA International Conference*, 2019

Powell Dissertation Fellowship, *UCSD Math*, 2019

Inamori Fellow, *Inamori Foundation*, 2017

M. Salah Baouendi Graduate Fellowship, *UCSD Math*, 2014

PUBLICATION

Hou Jue, Zhao R., Cai T., Beaulieu-Jones B., Seyok T., Dahal K., Yuan Q., Xiong X., Bonzel C.-L., Fox C., Christiani D., Jemielita T., Liao K., Liaw K.-L., Cai T. (2022), Addressing Temporal Trends within Electronic Health Records: Comparing 5-year Survival Among Patients with Early Stage Colon Cancer Managed with Laparoscopy-assisted Colectomy vs. Open Colectomy. *JAMA Network Open*, to appear.

Hou Jue, Bradic J. and Xu R. (2021), Treatment Effect Estimation Under Additive Hazards Models With High-Dimensional Confounding. *Journal of American Statistical Association*, in press. doi:10.1080/01621459.2021.1930546.

Hou Jue, Kim N., Cai T., Dahal K., Weiner H., Chitinis T., Cai T. and Xia Z. (2021), Comparison of Dimethyl Fumarate vs Fingolimod and Rituximab vs Natalizumab for Treatment of Multiple Sclerosis. *JAMA Network Open*, doi:10.1001/jamanetworkopen.2021.34627.

Hou Jue, Chan S. F., Wang X. and Cai T. (2021), Risk Prediction with Imperfect Survival Outcome Information from Electronic Medical Records. *Biometrics*, in press. doi:10.1111/biom.13599.

Liang L., Kim N., Hou Jue, Cai T., Dahal K., Lin C., Finan S., Savovoa G., Rosso M., Polgar-Tucsanyi M., Weiner H., Chitnis T., Cai T. and Xia Z. (2021), Temporal Trends of Multiple Sclerosis Disease Activity: Electronic Health Records Indicators. *Multiple Sclerosis and Related Disorder*, in press. doi:10.1016/j.msard.2021.103333.

Juluri K., Wu Q., Voutsinas J., Hou Jue, Hirayama A., Mullane E., Cleary N., Maloney D., Turtle C., Bar M., Gauthier J. (2021), Severe cytokine release syndrome is associated with hematologic toxicity following CD19 CAR T-cell therapy. *Blood Advances*, open access. doi:10.1182/bloodadvances.2020004142.

Huang S., Cai T., Weber B., He Z., Dahal K., Hong C., Hou Jue, Seyok T., Cagan A., DiCarli M., Joseph J., Kim S., Solomon D., Cai T., Liao K. (2021), The Association Between Inflammation, Incident Heart Failure, and Heart Failure Subtypes in Patients with Rheumatoid Arthritis. *Arthritis Care & Research*, in press. doi:10.1002/acr.24804.

Hou Jue, Bradic J. and Xu R. (2019), Inference under Fine-Gray Competing Risks Model with High-Dimensional Covariates. *Electronic Journal of Statistics* **13**(2):4449-4507. doi:10.1214/19-EJS1562.

Hou J., Paravati A., Hou Jue, Xu R. and Murphy J. (2018), High-dimensional variable selection and prediction under competing risks with application to SEER-Medicare linked data. *Statistics in Medicine* **37**:3486-3502. doi:10.1002/sim.7822.

Xu R., Hou Jue and Chambers C. D. (2018), The impact of confounder selection in propensity scores when applied to prospective cohort studies in pregnancy. *Reproductive Toxicology* **78**: 75-80. doi:10.1016/j.reprotox.2018.04.003.

Hou Jue, Chambers C. D. and Xu R. (2017), A nonparametric maximum likelihood approach for survival data with observed cured subjects, left truncation and right-censoring. *Lifetime Data Analysis* **24**(4): 612-651. [doi:10.1007/s10985-017-9415-2](https://doi.org/10.1007/s10985-017-9415-2).

Prakash, A., Hou Jue, Liu L., Gao Y., Kettering C. and Ragin A. B. (2017), Cognitive Function in Early HIV Infection. *Journal of NeuroVirology* **23**(3): 273-282. [doi:10.1007/s13365-016-0498-4](https://doi.org/10.1007/s13365-016-0498-4).

Hou Jue, Seneviratne C., Su X., Taylor J., Johnson B., Wang X.-Q., Zhang H., Kranzler H. R., Kang J. and Liu L. (2015), Subgroup identification in personalized treatment of alcohol dependence. *Alcoholism: Clinical and Experimental Research* **39**(7): 1253-1259. [doi:10.1111/acer.12759](https://doi.org/10.1111/acer.12759).

In Revision

Liang L., Hou Jue, Uno H., Cho K., Ma Y., Cai T., Robust approach to event time annotation using longitudinal medical encounters. In revision with *Lifetime Data Analysis*. [arXiv:2110.09612](https://arxiv.org/abs/2110.09612).

Hou Jue, Guo Z. and Cai T., Surrogate Assisted Semi-supervised Inference for High Dimensional Risk Prediction. In revision with *Journal of Machine Learning Research*. [arXiv:2105.01264](https://arxiv.org/abs/2105.01264).

Submitted

Han L., Hou Jue, Cho K., Duan R., Cai T., Federated Adaptive Causal Estimation (FACE) of Target Treatment Effects. Submitted to *Journal of American Statistical Association*. [arXiv:2112.09313](https://arxiv.org/abs/2112.09313).

Lin Y., Su J., Liu Y., Hou Jue, Wang F., Implicit Profiling Estimation for Semiparametric Models with Bundled Parameters. Submitted to *Journal of Computational Mathematics*. [arXiv:2108.07928](https://arxiv.org/abs/2108.07928).

Working Papers

Hou Jue, Mukherjee R., Cai T., Efficient and Robust Semi-supervised Learning: Estimating ATE with Partially Annotated Treatment and Response. Presented at *Joint Statistical Meeting 2021*. [arXiv:2110.12336](https://arxiv.org/abs/2110.12336).

Hou Jue, Rotnitzky A., Robins J., Cai T., Triply robust semi-supervised learning for high-dimensional linear regression with missing-at-random outcomes.

Hou Jue, Zhao R., Cai T., Hong C., Ayakulangara Panickan V., Liao K., Qu X., Hao J., Fox C., Jemielita T., Liaw K.-L., Cai T., Expansion of real-world evidence with advanced data curation technologies.

PRESENTATION

CluBear China Seminar (2022), invited talk.

14th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2021), invited talk.

Harvard T.H. Chan School of Public Health Department of Biostatistics Lightning Talks (2021).
37th International Conference on Pharmacoepidemiology (2021), talk in lightening session.
UC San Diego Biostatistics Seminar (2021), invited talk.
Joint Statistical Meeting (2021), talk in Speed Session.
Joint Statistical Meeting (2020), talk in Contributed Session.
The 11th ICSA International Conference (2019), invited talk.
Joint Statistical Meeting (2018), talk in Speed Session.
International Chinese Statistical Association Applied Statistics Symposium (2016), invited talk.

ACADEMIC SERVICE

Reviewer

- Annals of Statistics.
- Biometrical Journal.
- Biometrics.
- Biostatistics.
- BMC Infectious Diseases.
- Canadian Journal of Statistics.
- Computational and Mathematical Methods in Medicine.
- Electronic Journal of Statistics
- Journal of Statistical Computation and Simulation.
- Journal of the American Statistical Association: Theory & Methods.
- Journal of the Royal Statistical Society: Series C.
- Lifetime Data Analysis.

TEACHING EXPERIENCE

University of California San Diego

2014-2019

Teaching Assistant

San Diego, CA

- Mathematical Statistics-I (MATH-181A): 2015 Wi, 2017 Sp,
- Mathematical Statistics-II (MATH-181B): 2015 Sp, 2016 Sp, 2017 Fa, 2018 Sp, 2019 Sp
- Statistics for Engineers (MATH-183): 2016 Wi
- Computational Finance (MGTF-413): 2017 Wi, 2018 Wi, 2019 Wi
- Applied Linear Algebra (MATH-102): 2015 Fa, 2018 Fa
- Calculus-I (Math-20A): 2014 Fa

University of Illinois at Urbana-Champaign

2014

Teaching Assistant

Urbana, IL

- Calculus-I (Math-231): 2014 Sp.

SOFTWARE

R Packages

- curephEM: Mixture cure-rate model with left-truncation and right censoring, work with E. Ren. On [CRAN](#).
- SemiEstimate: implicit profiling method for semiparametric models, work with J. Su. On [CRAN](#)
- FineGrayHDI: LASSO Coordinate descent and one-step inference for Cox proportional hazards model and Fine-Gray proportional subdistribution hazards model, work with V. Wu. Under development on [GitHub](#).
- MASTA: Multi-modal Automated Survival Time Annotation for incidence phenotyping from electronic health records, work with H. Uno. Under development on [GitHub](#).
- SPT.grpadalasso: Estimation of Semi-parametric Transformation models with feature selection, work with X. Qu. Under development on [GitHub](#).