

Hongxiang Qiu

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Education

University of Washington

PhD, Biostatistics 2016–2021
Dissertation advisor: Marco Carone, PhD and Alex Luedtke, PhD

The Chinese University of Hong Kong

B.Sc., Mathematics; Minor in Statistics 2012–2016
Capstone project advisor: Raymond Honfu CHAN, PhD

Research Experience

Kaiser Permanente Washington Health Research Institute

Graduate Research Assistant 2016–2021
PRimary care Opioid Use Disorders Treatment (PROUD) Trial
Advisor: Jennifer F. Bobb, PhD

Shanghai Institute of Biological Sciences

Advisor: Shuhua Xu, PhD Summer 2015

Teaching Experience

University of Washington

Tutor Spring 2019
STAT 583: Advanced Theory of Statistical Inference
Topics including: empirical processes, semiparametric efficiency
Instructors: Alex Luedtke, PhD and Marco Carone, PhD

University of Washington

Teaching Assistant Winter 2019
BIOST 557: Applied Statistics and Experimental Design
Topics including: one/two-sample t-test, linear models, GLMs, causation versus correlation
Instructor: Brian Lerous, PhD

University of Washington

Grader

Winter 2018

STAT 582: Advanced Theory of Statistical Inference

Topics including: Bayes methods, decision theory, UMPU test

Instructor: Jon A. Wellner, PhD

Peer reviewed publications

(† stands for equal contribution.)

Methodology

1. **Qiu H**, Luedtke A, Carone M (2021). Universal sieve-based strategies for efficient estimation using machine learning tools. *Bernoulli*, 27(4), 2300–2336.
2. **Qiu H**, Carone M, Sadikova E, Petukhova M, Kessler R, Luedtke A (2020). Optimal individualized decision rules using instrumental variable methods. *Journal of the American Statistical Association* (with discussion), 116(533), 174–191.
3. Bobb J, **Qiu H**, Matthews, A, McCormack J, Bradley K (2020). Addressing identification bias in the design and analysis of cluster-randomized pragmatic trials: a case study. *Trials*, 21(1), 289.
4. **Qiu H**, Luedtke A, van der Laan M (2019). Contribution to discussion of “Entropy Learning for Dynamic Treatment Regimes” by Jiang B, Song R, Li J, Zeng D. *Statistica Sinica*, 29(4): 1666–1678.

Application

5. Fitts W, Tassiou NR, Cisse FA, Vogel A, Atakla HG, Sakadi F, **Qiu H**, Conde ML, Balde AT, Bah AK, Hamani ABD, Anand P, Patenaude B, Mateen F (2019). School Status and its Associations among Children with Epilepsy in the Republic of Guinea. *Epilepsy & Behavior*, 97, 275–281.
6. Jang M, Sakadi F, Tassiou NR, Abass CF, Grundy SJ, Woga A, Kenda BA, Lamine CM, Talibé BA, **Qiu H**, Cohen JM, Carone M, Mateen FJ (2018). Impact of Poorly Controlled Epilepsy in the Republic of Guinea. *Seizure*, 61, 71–77.
7. Zhou Y[†], **Qiu H**[†], Xu S (2017). Modeling continuous admixture using admixture-induced linkage disequilibrium. *Scientific Reports*, 7, 1–10.

Preprint/under review

8. Qiu H, Dobriban E, Tchetgen Tchetgen E (2022). Distribution-free Prediction Sets Adaptive to Unknown Covariate Shift. *arXiv preprint: arXiv:2203.06126*
9. Qiu H, Luedtke A (2022+). Adversarial Meta-Learning of Gamma-Minimax Estimators That Leverage Prior Knowledge. *arXiv preprint: arXiv:2003.05465*

Presentations

1. “Optimal individualized decision rules using instrumental variable methods.” **Qiu H**, Carone M, Sadikova E, Petukhova M, Kessler R, Luedtke A.
 - 2021 Joint Statistical Meetings
 - 2020 ENAR Spring Meeting
 - Biostatistics student seminar
 - Causal working group
2. “TMLE based on Pseudo-gradients and examples from my project.” **Qiu H**. Semiparametric Efficiency Reading Group.
3. “Constructing asymptotically normal plug-in estimators with highly adaptive Lasso and data adaptive series.” **Qiu H**, Luedtke A & Carone M.
 - 2019 WNAR/IMS/JR (Japanese Region) meeting
 - Biostatistics student seminar

Reviewer for International Journals and Conferences

- 37th Conference on Uncertainty in Artificial Intelligence (UAI 2021)
- *Journal of the American Statistical Association*
- *Biometrics*
- *Journal of Causal Inference*
- *Journal of Computational and Graphical Statistics*
- *International Journal of Biostatistics*
- *Statistical Methods in Medical Research*

Awards and Fellowships

University of Washington

Scholarship for 6th Seattle Symposium in Biostatistics
2018 Donovan J. Thompson Award

October 2020
October 2018

Chinese University of Hong Kong

Dean’s List, 2015–2016
College Head’s List, 2014–2015
Department/Programme Scholarship, 2014–2015
Undergraduate Mathematics Scheme
Shaw College Global Exposure Award Scheme 2014–15

July 2016
January 2016
January 2016
November 2015
April 2015

Heung To Educational Fund Mathematics Scholarship	April 2015
Reaching Out Award	April 2015
1978 Mathematics Alumnus Li Sze-lim Scholarships	January 2015
College Head's List, 2013–2014	January 2015
Department/Programme Scholarship, 2013–2014	January 2015
CUHK Golden Jubilee Scholarship for Outgoing Exchange Student, 2014-2015	September 2015
Yasumoto International Exchange Scholarships	July 2014
Dean's List, 2013–2014	July, 2014
Undergraduate Mathematics Scheme	June 2014
Dragon Crowd "SCHIESSER" Scheme	April 2014
College Head's List, 2012–2013	January 2014
Department/Programme Scholarship, 2012–2013	January 2014
Outstanding Essay Award, 2012–2013	November 2013
Dean's List, 2012–2013	July 2013

Software

CAMer R package for Continuous Admixture Modeling based on the result of iMAAPs.

Languages and Skills

Programming:

- proficient: R
- familiar: Python, MATLAB
- basic: SAS, Stan, JAGS, C++, C

Operating systems: Windows, Unix

Other computer skills: Git, \LaTeX , Markdown, Microsoft Office

Languages: English (fluent), Chinese Mandarin (native), Chinese Cantonese (basic)