Arun Kumar Kuchibhotla

CONTACT INFORMATION	4601 Chester Avenue, Philadelphia, PA – 19143 Email: arunku@wharton.upenn.edu Website: https://arun-kuchibhotla.github.io/
RESEARCH INTERESTS	Post-selection Inference, Replicability Crisis, Large Sample Theory, Robust Statistics, Non/semi-parametric Statistics, Concentration Inequalities, Statistical Computing.

EDUCATION

Fifth Year Graduate Student, (Advisors: Lawrence D. Brown, Andreas Buja)
The Wharton School,
University of Pennsylvania, Philadelphia, USA.

Indian Statistical Institute, Kolkata.
M. Stat. (Hons),
- Specialization: *Mathematical Statistics and Probability.*
- Completed in: 2015.
- First class with Distinction. Scored 88%.

B. Stat. (Hons),
- Major Subject: *Statistics*
- Completed in: 2013.
- First class with Distinction. Scored 80.5%.

JOURNAL PUBLICATIONS

1. **Kuchibhotla A. K.**, Brown L. D., Buja A., Cai, J., George E.I., Zhao L.H. (2019) "Valid Post-selection Inference in Model-free Linear Regression." *arXiv:1806.04119.* Accepted at *Annals of Statistics.*

2. Bellec P., and **Kuchibhotla A. K.**, (2019) "First order expansion of convex regularized estimators" *Advances in Neural Information Processing Systems 33, To appear.* *arXiv:1910.05480.*

3. Buja A., **Kuchibhotla A. K.**, Berk R., George E. I., Tchetgen Tchetgen E., Zhao L. H. (2019) "Models as Approximations — Rejoinder" *Statistical Science, To appear.*

4. Buja A., Brown L. D., **Kuchibhotla A. K.**, Berk R., George E. I., Zhao L. H. (2019) "Models as Approximations — Part II: A General Theory of Model-Robust Regression" *arXiv:1612.03257. Statistical Science, To appear (with discussion).*

5. Berk R., Buja A., Brown L. D., George E. I., **Kuchibhotla A. K.**, Su W. J., Zhao L. H., (2018) "Assumption Lean Regression" *The American Statistician, To appear.*

6. **Kuchibhotla A. K.**, Mukherjee S. and Basu A. (2017) "Statistical inference based on bridge divergences." *Annals of the Institute of Statistical Mathematics, 71 (3), 627-656.*

7. **Kuchibhotla A. K.** and Basu A. (2017) "On The Asymptotics of Minimum Disparity Estimation." *TEST: An Official Journal of the Spanish Society of Statistics and Operations Research, 22.*

8. **Kuchibhotla A. K.** and Basu A. (2015) "A General Set Up for Minimum Disparity Estimation." *Statistics and Probability Letters*, Vol. 96, 68-74, 2015.

PREPRINTS/ SUBMISSIONS	9. **Kuchibhotla A. K.**, Ramdas A. K. (2019) "Nested conformal prediction and the generalized jackknife+" *arXiv:1910.10562*.

10. **Kuchibhotla A. K.**, Brown L. D., Buja A. and Cai, J. (2019) "All of Linear Regression" *arXiv:1910.06386*.

11. **Kuchibhotla A. K.** and Patra R. K. (2019) "On Least Squares Estimation under Heteroscedastic and Heavy-Tailed Errors." *arXiv:1909.02088.* Submitted.

12. **Kuchibhotla A. K.** (2018) "Deterministic Inequalities for Smooth M-estimators." *arXiv:1809.05172*.

13. **Kuchibhotla A. K.**, Banerjee D., Mukherjee S. (2019) "High-dimensional CLT: Improvements, Non-uniform Extensions and Large Deviations" *arXiv:1806.06153.* Revision submitted to Bernoulli.

14. **Kuchibhotla A. K.**, Brown L. D., Buja A. (2018) "Model-free Study of Ordinary Least Squares Linear Regression." *arXiv:1809.10538*.

15. Chakrabortty A. and **Kuchibhotla A. K.** (2018) "Tail Bounds for Canonical U-Statistics and U-Processes with Unbounded Kernels."

16. **Kuchibhotla A. K.**, Chakrabortty A. (2018) "Moving Beyond Sub-Gaussianity in High-Dimensional Statistics: Applications in Covariance Estimation and Linear Regression." *arXiv:1804.02605.* Submitted.

17. **Kuchibhotla A. K.**, Brown L. D., Buja A., George E.I., Zhao L.H. (2018) "A Model Free Perspective for Linear Regression: Uniform-in-model Bounds for Post Selection Inference." *arXiv:1802.05801.* Minor Revision Econometric Theory. Invited paper for Festschrift on the occasion of Benedikt Poetscher's 65th birthday.

18. **Kuchibhotla A. K.**, Patra R. K., Sen B. (2017) "Least Squares Estimation in a Single Index Model with Convex Lipschitz link" *arXiv:1708.00145.* Submitted.

19. **Kuchibhotla A. K.** and Parta R. K. (2016) "Efficient Estimation in Single Index Models through Smoothing splines" *arXiv:1612.00068.* Minor Revision submitted to Bernoulli. |
| TEACHING | • STAT991 – Topics in Linear Models (Fall 2017)
— Taught half a course jointly with Lawrence D. Brown. Part of creating the course structure and lecture notes.
• STAT111 – Introductory Statistics (Summer 2018)
— Created syllabus, course material and lectured five times a week to a class of about 25 undergraduate students from various disciplines and backgrounds. |
| PRESENTATIONS | • Invited talk at MCP 2019, National Taiwan University.
• Invited talk at WHOA-PSI-4, 2019.
• Invited talk at JSM 2019, Denver.
• Invited talk at ICSA 2019, Nankai University.
• Invited talk at young researchers session, Lawrence D Brown memorial workshop.
• Shared a talk with Andreas Buja at WHOA-PSI-3, 2018.
• Invited talk at "Workshop Model Selection, Regularization, and Inference" 2018 (Represented Larry Brown).
• Shared a talk with Andreas Buja at SLDSC 2018.
• Invited talk at WHOA-PSI-2, 2017 (Represented Larry Brown).
• Special topics session at World Statistics Congress 2015, Rio de Janeiro, Brazil.
• Contributed session presentation at ICORS 2015, Kolkata, India. |

- Contributed session presentation at ICORS 2014, Halle, Germany.
- Two seminars in Theoretical Statistics and Mathematics Unit, ISI, Kolkata on August 7 and 13, 2012 based on my project under Dr. Patankar.
- A department seminar in ISI, Chennai on July 3, 2013.

ACADEMIC
ACHIEVEMENTS

- The J. Parker Memorial Bursk Prize (2019) for excellence in research, Department of Statistics, University of Pennsylvania.
- Student travel award, Wharton Doctoral Programs, George James Term Fund 2019.
- Got second prize in Jan Tinbergen competition for young statisticians from developing countries.
- Awarded Kishore Vaigyanik Protsahan Yojana scholarship since April 2011.
- Inspire Scholar since April 2011. (From Department of Science and Technology, India)

PROGRAMMING
AND SCRIPTING

- C – Basic Programming,
- R – Proficient,
- LaTeX– Proficient.