

Eric Yanchenko

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- Education**
- NORTH CAROLINA STATE UNIVERSITY *2019-Present*
PhD Candidate in Statistics
Advisors: Dr. Brian Reich and Dr. Srijan Sengupta
- THE OHIO STATE UNIVERSITY *2019*
B.S. Mathematics, B.S. Physics. Statistics Minor
with Honors in the Arts and Sciences, Summa Cum Laude
- Positions**
- TOKYO INSTITUTE OF TECHNOLOGY *2023-2024*
JSPS Short-term Fellow, Dr. Petter Holme, Dr. Tsuyoshi Murata
- NORTH CAROLINA STATE UNIVERSITY *2020-Present*
Research Assistant, Dr. Brian Reich
Research Assistant, Dr. Srijan Sengupta *2020-Present*
Duke Clinical Research Institute NHBLI Integrated Biostatistical Training Program
for CVD research T32 training grant trainee, Dr. Hwanhee Hong *2021-2022*
Data-Enabled Science and Engineering of Atomic Structures Fellow *2020-2021*
- THE OHIO STATE UNIVERSITY
Research Assistant, Department of Physics, Dr. Leonard Brillson *2015-2019*
Research Assistant, Department of Statistics, Dr. Christopher Hans *2018*
- UNIVERSITY OF MICHIGAN
Participant, Big Data Summer Institute, Dr. Jenna Wiens, Dr. Danaï Koutra *2018*
- JUSTUS-LIEBIG UNIVERSITY *2017*
Research Assistant, Institute of Applied Physics, Dr. Derck Schlettwein
- Publications**
- Yanchenko, E.** and Sengupta, S. (2023) Core-periphery structure in networks: a statistical exposition, *Statistics Surveys*, **17**, 42-74, <https://doi.org/10.1214/23-SS141>
- Yanchenko, E.**, Bondell, H.D. and Reich, B.J. (2023+) R2D2 goes to space! A principled approach to setting prior distributions on spatial parameters, arXiv link: <https://arxiv.org/abs/2301.09951>
- Yanchenko, E.** (2022) A divide-and-conquer algorithm for core-periphery identification in large networks. *Stat.* pp. e475. <https://doi.org/10.1002/sta4.475>
- Swaminathan, A.C., Snyder, L.D., Hong, H., Stevens, S.R., Long, A.S., **Yanchenko, E.**, Qiu, Y., Liu, R., Zhang, H., Fischer, A., Burns, L., Wruck, L., Palmer, S.M. (2022+) Generalizability of External Clinical Trial and Electronic Health Record

Control Arms in Idiopathic Pulmonary Fibrosis. *In review.*

Yanchenko, E. (2022+) Quantifying the presence/absence of meso-scale structures in networks, arXiv link: <https://arxiv.org/abs/2203.16620>

Yanchenko, E., Bondell, H.D. and Reich, B.J., (2021+) The R2D2 prior for generalized linear mixed models, arXiv link: <https://arxiv.org/abs/2111.10718>

Yanchenko, E. and Sengupta, S., (2021+) A generalized hypothesis test for community structure and homophily in networks, arXiv link: <https://arxiv.org/abs/2107.06093>

Asel, T., **Yanchenko, E.**, Yang, X., Jiang, S., Krymowski, K., Wang, Y., Trout, A., McComb, D., Windl, W., Goldberger, J., Brillson, L., (2018) Identification of Ge Vacancies as Electronic Defects in Methyl- and Hydrogen-Terminated Germanane, *Applied Physics Letters*, **113**, 061110.

Jiang, S., Krymowski, K., Asel, T., Arguilla, M., Cultrara, N., **Yanchenko, E.**, Yang, X., Brillson, L., Windl W., Goldberger, J.G., (2016) Tailoring the Electronic Structure of Covalently Functionalized Germanane via the Interplay of Ligand Strain and Electronegativity, *Chemistry of Materials*, **28**, 8071-8077.

Presentations

A generalized hypothesis test for community structure in networks, *Center for Computational Social Science, Kobe University, Kobe, Japan* 2023
A divide-and-conquer algorithm for core-periphery identification in large networks, *Invited talk, North Carolina State University, Raleigh, NC* 2022
A divide-and-conquer algorithm for core-periphery identification in large networks (poster), *SRCOS Summer Research Conference, Jekyll Island, GA* 2022
A generalized hypothesis test for community structure and homophily in networks, *Sunbelt 2022, INSNA, Cairns, Australia* 2022
Quantifying the presence/absence of meso-scale structures in networks, *North Carolina State University, Raleigh, NC* 2022
A model-agnostic hypothesis test for community structure and homophily in networks (poster), *SRCOS Summer Research Conference, Jekyll Island, GA* 2021
A model-agnostic hypothesis test for community structure and homophily in networks, *Joint Statistical Meeting, Seattle, WA* 2021
Big Data Summer Institute Symposium and Poster Session, Ann Arbor, MI 2018

Teaching

Introduction to Bayesian inference lecture for astrostatistics group, NCSU 2023
Guest lecture for ST740 (Advanced Bayesian Inference, NCSU), *Bayesian Variable Selection* 2022
Tutor for TRIO college program, NCSU 2022
Guest lecture for ST758 (Advanced Statistical Computing, NCSU), *Networks, Community Structure and Combinatorial Optimization* 2021
Instructor for statistics first-year PhD qualifying exam boot camp 2021
Tutored one student at NCSU in ST705 (Linear Models) 2021
Wrote and recorded tutorial for SEAS program on p -values / hypothesis testing 2021
Tutored two students in High-School Algebra I 2020-2021
Developed curriculum and tutored Japanese businessman in English 2020

Reviewer service

Served as a peer-reviewer for the following journals:
Journal of the American Statistical Association – Theory & Methods
Journal of Computational and Graphical Statistics

Awards

Travel Award, *ISBA World Meeting*, \$300 (declined) 2022
Clint Miller Award (best graduate student poster), *SRCOS Summer Research Conference* 2021
NC State Datathon, 3rd Place 2021
Paige Plagge Graduate Award for Citizenship, NCSU Statistics Department 2020
Awarded for good citizenship to “a graduate student with an outstanding academic record, who in the judgment of the committee has especially enhanced the life of fellow students with encouragement, generosity and/or humor.”

Provost Doctoral Fellowship, NCSU Graduate School, \$24,000 2019-2020
University Graduate Fellowship, NCSU Graduate School, \$4,000 2019-2020
Phi Beta Kappa 2019

Service

NC State-Duke Summer Institute in Biostatistics Graduate Student Mentor 2022
GRAD-Future Workshop Panelist, NCSU 2022
Climate Committee, Department of Statistics, NCSU 2021-2022
Started an English Conversation Club in NCSU Dept. of Stat. where four to six international students and two domestic students met weekly to encourage department camaraderie while also teaching idioms and other American-English speaking conventions to the international students 2019-2022