DANIEL MALINSKY

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Date of Preparation of CV: December 1st, 2024

ACADEMIC APPOINTMENTS

07/2020–present Assistant Professor
Department of Biostatistics
Mailman School of Public Health
Columbia University

Affiliate, Columbia Data Science Institute

EDUCATION

08/2012–12/2017 Carnegie Mellon University

PhD in Logic, Computation, and Methodology (2017)
Dissertation title: "Data-driven causal modeling for policy"
Committee: Peter Spirtes, Clark Glymour, David Danks, and Kevin Hoover

MS in Logic, Computation, and Methodology (2015)
Thesis title: "Estimating intervention effects in systems with unobserved confounding"
Committee: Peter Spirtes and Clark Glymour

09/2007–05/2011 Columbia University

Bachelor of Arts *cum laude* (2011)
Majors in Physics and Music
Concentration (Minor) in Philosophy

TRAINING

01/2018–06/2020 Johns Hopkins University

Postdoctoral Fellow
Department of Computer Science
Supervisors: Ilya Shpitser (JHU) and Eric J. Tchetgen Tchetgen (UPenn)

HONORS AND AWARDS

2023	Co-authored 2016 article with L.K. Bright and M. Thompson selected for the *Philosophy of Science* journal's 90th Anniversary Collection (3 or 4 highly-cited, high-impact articles were selected by the Editorial Board from every decade)
2022	Invited Long-Term Visitor at the Simons Institute, UC Berkeley
2021	Calderone Health Equity Award (Columbia Mailman School of Public Health)
2019	AAAI Outstanding Program Committee Member Award
2016	NSF Travel Award (Philosophy of Science Association)
2011	Copper Crown Leadership Award (Columbia College)

ACADEMIC SERVICE

Co-organizer	Causal Inference Learning Group (CILG), Mailman School, Columbia (2021–present)
Committee Member	Qualifying exams (Theory), Dept. of Biostatistics, Columbia (2023–present)
Committee Member	Research advisory committee, Dept. of Biostatistics, Columbia (2023–present)
Committee Member	Diversity committee, Dept. of Biostatistics, Columbia (2020–present)
Committee Member	Doctoral admissions committee, Dept. of Biostatistics, Columbia (2020–present)
Committee Member	Postdoctoral fellow recruitment, Data Science Institute, Columbia (2024)
Seminar Organizer	Levin Lecture Series, Dept. of Biostatistics, Columbia (2022–2023)
Committee Co-chair	FORWARD anti-racism initiative ("Setting Goals & Measuring Progress" Action Corp), Mailman School, Columbia (2022)
Committee Member	Data Science and Health Initiative (DASHI) grant proposals, Data Science Institute, Columbia (2022)
Committee Member	Qualifying exams (Applications), Dept. of Biostatistics, Columbia (2021)
Committee Member	Data science seed grant proposals, Data Science Institute, Columbia (2020, 2022, 2024)
Committee Member	Curriculum committee, Dept. of Biostatistics, Columbia (2020, 2021)

PROFESSIONAL ORGANIZATIONS AND SOCIETIES

Member	American Statistical Association (2020–present)
Conference Organizer	Workflow Co-chair for 2nd Conference on Causal Learning and Reasoning (CLeaR) (2023)
Conference Organizer	Tutorial Co-chair for 38th Conference on Uncertainty in Artificial Intelligence (UAI) (2022)
Conference Organizer	Workflow Co-chair for 1st Conference on Causal Learning and Reasoning (CLeaR) (2022)
Workshop Organizer	Co-organizer of the 9th Workshop on Causal Inference at UAI (2024)
Workshop Organizer	Co-organizer of the Workshop on Causal Discovery and Causality-Inspired Machine Learning at NeurIPS (2020)
Session Organizer	Atlantic Causal Inference Conference (2018)
Session Chair	Eastern North American Regional (ENAR) Meeting of the International Biometric Society (2020)
Area Chair	ACM Conference on Fairness, Accountability, and Transparancy (FAccT) (2023, 2024, 2025)
Reviewer	National Funding Agencies: NIH/NIA ad hoc study section / (2024) NIH/NINDS ad hoc study section (2024) Icelandic Research Fund (2022) National Science Foundation (2020) Statistics and Biostatistics: *Annals of Statistics, Behaviormetrika, Bernoulli, Biometrics, Biometrika, Econometrics, International Journal of Biostatistics, Journal of the American Statistical Association, Journal of Causal Inference, Journal of Data Science and Analytics, Journal of the Royal Statistical Society: Series B, Stat, Statistics in Medicine* Computer Science and Machine Learning: *Artificial Intelligence, International Journal of Approximate Reasoning, Journal of Machine Learning Research, Machine Learning, Transactions in Machine Learning Research*, AAAI*, AISTATS*, ICML*, NeurIPS*, UAI*, many workshops (*Highly-selective conferences with peer-reviewed published proceedings of full-length papers)

Public Health and Medicine:
American Journal of Epidemiology, Epidemiology, International Journal of Environmental Research and Public Health, Journal of the American Medical Informatics Association, The Lancet: Planetary Health

Philosophy:
British Journal for the Philosophy of Science, Erkenntnis, Philosophy of Science, Synthese

Generalist:
Science Advances

FELLOWSHIP AND GRANT SUPPORT

CURRENT SUPPORT

09/2024–06/2029 R01ES035792 NIH / NIEHS (PIs: Margolis/Fox)
Prenatal Exposure to Air Pollution and Childhood Anxiety Symptoms: Novel pathogenic pathways
Amount: $4,063,053 total
Role: Co-Investigator

09/2024–07/2026 U2RTW012123 NIH / NIEHS / Fogarty Int'l Ctr (PIs: Berhane/Bekele/Weke)
Advancing Public Health Research in Eastern Africa through Data Science Training (APHREA-DST)
Amount: $1,749,849 total
Role: Co-Investigator

09/2024–08/2025 R56AG082187 NIH / NIA (PI: Desvarieux)
Multimorbidity 3-City Alzheimer's Disease EHR Study (M3AD Study)
Amount: $5,387,160 total
Role: Co-Investigator

08/2022–08/2027 K25ES034064 NIH / NIEHS (PI: Malinsky)
Flexible causal inference methods for estimating longitudinal effects of air pollution on chronic lung disease
Amount: $554,049 total
Role: Principal Investigator, 75% effort

PAST SUPPORT

09/2022–09/2024 Columbia Mailman Dean's Centennial Grand Challenges Award
(PIs: Belsky/Herbstman/Wei)

Towards a New Science of Health: Developing an Operational Definition of Intrinsic Health
Role: Co-Investigator, 5% effort

01/2020–06/2020 NSF Award 1939675 (PI: Shpitser)
FAI: Quantifying Direct and Indirect Consequences of Racial Disparities in Outcomes Following Cardiac Surgery
Amount: $169,734 over 1 year
Role: Key Personnel (Postdoctoral Fellow), 45% effort

EDUCATIONAL CONTRIBUTIONS

ADVISING & MENTORSHIP

2023– Anja Shahu (advisor, PhD student in Biostatistics)

2023– Ting-Hsuan Chang (advisor, PhD student in Biostatistics)

2022– Zain Kahn (co-advisor, PhD student in Biomedical Engineering)

2021– Safiya Sirota (advisor, PhD student in Biostatistics)

2021–2023 Ilan Cerna-Turoff (co-mentor, NIEHS T32 postdoctoral fellow)

2024 Ridiya Imran (undergraduate, BEST summer program)

2024 James Hillers (undergraduate, BEST summer program)

2024 Avani Ghosh (undergraduate, BEST summer program)

2022 Ellie Schumacher (undergraduate, SIBDS summer program)

2022 John Yanev (undergraduate, SIBDS summer program)

2021 Jiarui Fu (practicum supervisor, MS Biostatistics)

2021 Mengyuan Li (practicum supervisor, MS Biostatistics)

2021 Tianna Couch (undergraduate, BEST summer program)

2021 Chloe Troxell (undergraduate, BEST summer program)

DOCTORAL EXAMINATION, ADVISORY, AND DEFENSE COMMITTEES

2024 Domonique Reed (PhD student in Epidemiology, dissertation defense)

2024 Charlotte Fowler (PhD student in Biostatistics, dissertation defense)

2022	Ranjani Srinivasan (PhD student in Electrical & Computer Engineering, Johns Hopkins University, dissertation defense)
2021	Erin McDonnell (PhD student in Biostatistics, dissertation defense)

DIRECT TEACHING

Fall 2021–2024	Graphical Models for Complex Health Data (Columbia P8124) Enrollment approximately 25-40 students each year, graduate
Fall 2023	Statistical Practices and Research for Interdisciplinary Science II (SPRIS2) faculty mentor (Columbia P9186)
Spring 2018	Machine Learning: Data to Models (at Johns Hopkins) Enrollment approximately 50 students, undergraduate and graduate
Spring 2017	Social Structure, Public Policy, & Ethics (at Carnegie Mellon) Enrollment approximately 25 students, undergraduate
Summers 2014, 2015	Introduction to Political Philosophy (at Carnegie Mellon) Enrollment approximately 5 students, undergraduate
Summer 2013	Introduction to Ethics (at Carnegie Mellon) Enrollment approximately 5 students, undergraduate

GUEST LECTURES AND TUTORIALS

Nov. 2024	"Statistical challenges in causal discovery and estimation of causal effects" Guest lecture at causality course at Halicioglu Data Science Institute University of California, San Diego Approximately 10 students
Oct. 2024	"Data-driven selection of causal graphical models" Guest lecture at Psychiatric Epidemiology Training (PET) seminar Columbia Mailman School of Public Health Approximately 20 in-person attendees
June 2024	"Directed Acyclic Graphs (DAGs): From Representing Causal Models to Causal Discovery" (at EpiSummer@Columbia) Three day short-course Approximately 18 virtual attendees
May 2024	"Introduction to Causal Discovery" (at American Causal Inference Conference, Seattle WA) Half-day short-course Approximately 30 in-person attendees

July 2023	"Introduction to Causal Discovery" (at Society for Causal Inference) Half-day virtual short-course Approximately 10 online attendees
Nov. 2024	"Introduction to Causal Discovery" Guest lecture at causal inference course Emory University Approximately 10 students
Aug. 2022	"Fairness in Data Science: Criteria, Algorithms, and Open Problems" (at Joint Statistical Meetings, Washington DC) Half-day short-course, co-taught with Razieh Nabi and Ilya Shpitser Approximately 45 in-person attendees
Aug. 2022	"Case Study: Mediation analysis" (at Environmental Justice Bootcamp, Columbia MSPH SHARP Program) Guest lecture in virtual short-course, co-taught with Joan Casey Approximately 20 online attendees
Jan. 2022	"Introduction to Causal Discovery" (at University of California, Berkeley) Opening "bootcamp" (tutorial) of the Simons Institute Spring 2022 Program on Causality Approximately 50+ in-person attendees and 40+ online
Nov. 2019	"Introduction to Causal Inference" (at University of Maryland) Research Methods course for Pharmaceutical Health Services students Approximately 7 students, graduate

PUBLICATIONS

UNDER REVIEW / SUBMITTED

1. Z. Khan, **D. Malinsky**, M. Picard, A.A. Cohen, CSOH Group, Y. Wei (2024) "Quantile graph discovery through QuACC: Quantile Association via Conditional Concordance." Submitted. arXiv:2411.17033

2. T-H. Chang, Z. Guo, **D. Malinsky** (2024) "Post-selection inference for causal effects after causal discovery." Submitted. arXiv:2405.06763

3. **D. Malinsky** (2024) "A cautious approach to constraint-based causal model selection." Submitted. arXiv:2404.18232

4. M. Rubinstein, M. Cuellar, **D. Malinsky** (2024) "Mediated probabilities of causation." Submitted. arXiv:2404.07397

5. A.A. Cohen, M. Picard, J.R. Beard, D.W. Belsky, J. Herbstman, C.L. Kuryla, M. Liu, N. Makarem, **D. Malinsky**, S. Pei, Y. Wei, L.P. Fried (2024) "Intrinsic health as a foundation for a science of health." Submitted. OSF preprint doi.org/10.31219/osf.io/q7a84

6. N. Sani*, **D. Malinsky***, I. Shpitser (2023) "Explaining the behavior of black-box prediction algorithms with causal learning." Submitted. arXiv 2006.02482 (*co-first authors).

PEER-REVIEWED RESEARCH PUBLICATIONS

1. S. Lovinsky-Desir, J.A. Hirsh, E.A. Hoffman, N.B. Allen, A.G. Bertoni, J. Guo, D.R. Jacobs Jr, A.F. Laine, **D. Malinsky**, E.D. Michos, C. Sack, W. Shen, K.E. Watson, A. Wysoczanski, R.G. Barr, and B.M. Smith (2024). "Indices of Childhood Socioeconomic Status and Dysanapsis among Older Adults: The Multi-Ethnic Study of Atherosclerosis Lung Study." *Annals of the American Thoracic Society* 21(9): 1338-1342.

2. I. Cerna-Turoff, J.A. Casey, K. Keyes, K.E. Rudolph*, **D. Malinsky*** (2024) "Longitudinal exposure to natural hazards and young adults' anxiety and depression symptoms during the COVID-19 pandemic." *Scientific Reports* 14: 10538. (*shared last-authorship)

3. K.L. Buschur, T.D. Pottinger, J. Vogel-Claussen, ..., **D. Malinsky**, ..., T. Lappalainen, and R.G. Barr (2024) "Peripheral Blood Mononuclear Cell Gene Expression Associated with Pulmonary Microvascular Perfusion: The Multi-Ethnic Study of Atherosclerosis Chronic Obstructive Pulmonary Disease Study." *Annals of the American Thoracic Society* 21(6): 884-894.

4. P. Meunnig, D.W. Belsky, **D. Malinsky**, K-G Nguyen, Z. Rosen, H. Allen (2024) "The effect of the earned income tax credit on physical and mental health – results from the Atlanta Paycheck Plus experiment." *The Milbank Quarterly* 2(1): 122-140.

5. A.T. Strauss, C.N. Sidoti, H.C. Sung, V.S. Jain, H. Lehmann, T.S. Purnell, J.W. Jackson, **D. Malinsky**, J.P. Hamilton, J. Garonzik-Wang, S.H. Gray, M.L. Levan, J.S. Hinson, A.P. Gurses, A. Gurakar, D.L. Segev, S. Levin (2023) "Artificial intelligence-based clinical decision support for liver transplant evaluation and considerations about fairness: A qualitative study." *Hepatology Communications* 7: e0239.

6. J.M. Chen, **D. Malinsky**, R. Bhattacharya (2023) "Causal Inference With Outcome-Dependent Missingness and Self-Censoring." In *Proceedings of the 39th Conference on Uncertainty in Artificial Intelligence* (UAI).

7. E.D. Angelini, J. Yang, P.P. Balte, ..., **D. Malinsky**, ..., A.F. Laine, and R.G. Barr (2023) "Pulmonary Emphysema Subtypes Defined by Unsupervised Machine Learning on Computed Tomography Scans." *Thorax* 78(11): 1067-1079.

8. M. Vameghestahbanati, C. Sack, A. Wysoczanski, ..., **D. Malinsky**, ..., R.G. Barr, and B.M. Smith (2023) "Association of dysanapsis with mortality among older adults." *European Respiratory Journal* 61: 2300551.

9. A.T. Strauss, E. Moughames, J.W. Jackson, **D. Malinsky**, D.L. Segev, J.P. Hamilton, J. Garonzik-Wang, A. Gurakar, A. Cameron, L. Dean, E. Klein, S. Levin, T.S. Purnell (2023) "Critical interactions between race and the highly granular Area Deprivation Index in liver transplant evaluation." *Clinical Transplantation* 37: e14938.

10. J.J.R. Lee, R. Srinivasan, C.S. Ong, D. Alejo, S. Schena, I. Shpitser, M. Sussman, G.J.R. Whitman, and **D. Malinsky** (2023) "Causal determinants of postoperative length of stay in cardiac surgery using causal graphical learning." *Journal of Thoracic and Cardiovascular Surgery* 166(5): e446-e462.

11. N.P. Taskiran, G.T. Hiura, X. Zhang, R.G. Barr, S.M. Dashnaw, E.A. Hoffman, **D. Malinsky**, E.C. Oelsner, M.R. Prince, B.M. Smith, Y. Sun, Y. Sun, J.M. Wild, W. Shen, and E.W. Hughes (2022) "Mapping Alveolar Oxygen Partial Pressure in COPD Using Hyperpolarized Helium-3: The Multi-Ethnic Study of Atherosclerosis (MESA) COPD Study." *Tomography* 8(5): 2268-2284.

12. A.T. Strauss, C.N. Sidoti, T.S. Purnell, H.C. Sung, J.W. Jackson, S. Levin, V.S. Jain, **D. Malinsky**, D.L. Segev, J.P. Hamilton, J. Garonzik-Wang, S.H. Gray, M.L. Levan, J.R. Scalea, A.M. Cameron, A. Gurakar, A.P. Gurses (2022) "Multicenter study of racial and ethnic inequities in liver transplantation evaluation: Understanding mechanisms and identifying solutions." *Liver Transplantation* 28(12):1841–1856.

13. R. Nabi, **D. Malinsky**, and I. Shpitser (2022) "Optimal Training of Fair Predictive Models." In *Proceedings of the First Conference on Causal Learning and Reasoning* (CLeaR).

14. A. Martinez, R.H. Tobe, P.A. Gaspar, **D. Malinsky**, E.C. Dias, P. Sehatpour, P. Lakatos, G.H. Patel, D.H. Bermudez, G. Silipo, and D.C. Javitt (2022) "Disease-Specific Contribution of Pulvinar Dysfunction to Impaired Emotion Recognition in Schizophrenia." *Frontiers in Behavioral Neuroscience* 15:787383.

15. **D. Malinsky**, I. Shpitser, and E.J. Tchetgen Tchetgen (2022) "Semiparametric Inference for Non-monotone Missing-Not-at-Random Data: the No Self-Censoring Model." *Journal of the American Statistical Association* 117(539): 1415–1423.

16. R. Bhattacharya, T. Nagarajan, **D. Malinsky**, and I. Shpitser (2021) "Differentiable Causal Structure Learning Under Unmeasured Confounding." In *Proceedings of the 23rd International Conference on Artificial Intelligence and Statistics* (AISTATS).

17. J.D. Ramsey, **D. Malinsky**, and K.V. Bui (2020) "`algcomparison`: Comparing the Performance of Graphical Structure Learning Algorithms with TETRAD." *Journal of Machine Learning Research* 21(238): 1–6.

18. R. Bhattacharya, **D. Malinsky**, and I. Shpitser (2019) "Causal Inference Under Interference and Network Uncertainty." In *Proceedings of the 35th Conference on Uncertainty in Artificial Intelligence* (UAI).

19. R. Nabi, **D. Malinsky**, and I. Shpitser (2019) "Learning Optimal Fair Policies." In *Proceedings of the 36th International Conference on Machine Learning* (ICML).

20. **D. Malinsky**, I. Shpitser, and T.S. Richardson (2019) "A Potential Outcomes Calculus for Identifying Conditional Path-Specific Effects." In *Proceedings of the 22nd International Conference on Artificial Intelligence and Statistics* (AISTATS).

21. **D. Malinsky** and P. Spirtes (2019) "Learning the Structure of a Nonstationary Vector Autoregression." In *Proceedings of the 22nd International Conference on Artificial Intelligence and Statistics* (AISTATS).

22. S.W. Mogensen, **D. Malinsky**, and N.R. Hansen (2018) "Causal Learning for Partially Observed Stochastic Dynamical Systems." In *Proceedings of the 34th Conference on Uncertainty in Artificial Intelligence* (UAI).

23. **D. Malinsky** and P. Spirtes (2018) "Causal Structure Learning from Multivariate Time Series in Settings with Unmeasured Confounding." In *Proceedings of the 2018 ACM SIGKDD Workshop on Causal Discovery* (KDD-CD).

24. **D. Malinsky** and D. Danks (2018) "Causal Discovery Algorithms: A Practical Guide." *Philosophy Compass* 13: e12470.

25. **D. Malinsky** (2018) "Intervening on Structure." *Synthese* 135(5): 2295–2312.

26. **D. Malinsky** and P. Spirtes (2017) "Estimating Bounds on Causal Effects in High-dimensional and Possibly Confounded Systems." *International Journal of Approximate Reasoning* 88: 371–384.

27. **D. Malinsky** and P. Spirtes (2016) "Estimating Causal Effects with Ancestral Graph Markov Models." In *Proceedings of the Eighth International Conference on Probabilistic Graphical Models* (PGM).

28. L.K. Bright, **D. Malinsky**, and M. Thompson (2016) "Causally Interpreting Intersectionality Theory." *Philosophy of Science* 83(1): 60–81.

29. **D. Malinsky** (2015) "Hypothesis Testing, 'Dutch Book' Arguments, and Risk." *Philosophy of Science* 82(5): 917–929.

TECHNICAL REPORTS

1. L. Carminati, M. Delmastro, M. Hance, M. Jimenez Belenguer, R. Ishmukhametov, Z. Liang, G. Marchiori, V. Perez Reale, **D. Malinsky**, M. Tripiana, and G. Unal (2011) "Reconstruction and Identification Efficiency of Inclusive Isolated Photons." ATLAS Collaboration Note ATL-PHYS-INT-2011-014, CERN, Geneva.

OTHER MEDIA

1. I. Shpitser and **D. Malinsky** (2020) "Using Causal Reasoning To Guide Algorithms Toward a Fairer World." *The Ethical Machine*, Shorenstein Center on Media, Politics, and Public Policy, Harvard Kennedy School.

PRESENTATIONS

SCIENTIFIC MEETINGS (**DESIGNATES INVITED)

2024 "Fairness considerations in algorithm development: choices, definitions, and challenges"**
APHREA-DST Workshop on Public Health Data Science in East Africa (Mombasa, Kenya)

2024 "Risk prediction vs individual treatment rules for cardiovascular care decisions: a health equity perspective"**
Conference on "Bridging Prediction and Intervention in Social Systems" (Banff, Canada)

2024 "Post-selection inference for causal effects after causal discovery"
European Causal Inference Meeting (EuroCIM) (Copenhagen, Denmark)

2024 "Identifying causal determinants of clinical outcomes from electronic health records using graphical structure learning"**
Workshop on "Causal Discovery in Practice" (Virtual/Bremen, Germany)

2024 "Algorithmic fairness and causal thinking"**
Columbia Mailman SPH summit on Data Science for Public Health (New York, USA)

2023 "Explaining the behavior of black-box prediction algorithms with causal learning"**
Conference on "Science and Ethics in AI: challenges and opportunities" (Brescia/Milan, Italy)

2023 "A cautious approach to constraint-based causal model selection based on equivalence tests"
Joint Statistical Meetings (Toronto, Canada)

2023 "A cautious approach to constraint-based causal model selection based on equivalence tests"**
Simons Institute Causality Program Workshop, U.C. Berkeley (Berkeley, USA)

2023 "A cautious approach to constraint-based causal model selection based on equivalence tests"** (keynote)
Conference on "When Causal Inference Meets Statistical Analysis" (Paris, France)

2023 "A cautious approach to constraint-based causal model selection based on equivalence tests"
The European Causal Inference Meeting (EuroCIM) (Oslo, Norway)

2023 "Causal determinants of postoperative length of stay in cardiac surgery using causal graphical learning"**
The Second International Israel Data Science Initiative (IDSI) Conference (Virtual/Ein Gedi, Israel)

2022 "On interpreting the causal effects of race"
Philosophy of Science Association (PSA) Meeting (Pittsburgh, USA)

2022 "Causal determinants of postoperative length of stay in cardiac surgery using causal graphical learning"**
Pacific Causal Inference Conference (Virtual/Beijing, China)

2022 "Estimating longitudinal causal effects of air pollution exposures using marginal structural models"
Joint Statistical Meetings (Washington, DC)

2022 "Optimal training of fair predictive models"
1st Conference on Causal Learning and Reasoning (CLeaR) (Eureka, USA)

2021 "Fairness in data-driven decision-making: a causal modeling perspective"
Philosophy of Science Association (PSA) Meeting (Baltimore, USA)

2021 "Causality, interference, and network learning"**
International Conference on Machine Learning (ICML) Workshop on Neglected Assumptions in Causal Inference (Virtual)

2021 "Causal inference under interference and network uncertainty"**
4th International Conference on Econometrics and Statistics (EcoSta) (Virtual/Hong Kong)

2020 "A potential outcomes calculus for identifying conditional path-specific effects"**
13th International Conference of the ERCIM Working Group on Computational and Methodological Statistics (CMStatistics) (Virtual)

2020 "Semiparametric inference for non-monotone missing-not-at-random data: the no self-censoring model"**
Hikone Data Science, Shiga University (Virtual/Hikone, Japan)

2020 "Semiparametric inference for non-monotone missing-not-at-random data: the no self-censoring model"**
Joint Statistical Meetings (Virtual)

2019 "Fairness by causal mediation analysis: criteria, algorithms, and open problems"**
Johns Hopkins Behavioral Science Forum on Artificial Intelligence (Baltimore, USA)

2019 "Learning optimal fair policies"
10th Workshop in Decisions, Games, & Logic: Ethics, Statistics, and Fair AI (Pasadena, USA)

2019 "Data-driven causal inference for applications in political economy"
2nd Annual Conference on Politics and Computational Social Science (Washington DC, USA)

2019 "A potential outcomes calculus for identifying conditional path-specific effects"
Atlantic Causal Inference Conference (Montreal, CA)

2018 "Learning about changes to causal structure"**
Conference on Causation vs Constitution, University of Bergen (Bergen, Norway)

2018 "Causal structure learning from multivariate time series in settings with unmeasured confounding"
KDD Workshop on Causal Discovery (London, UK)

2018 "Causal structure learning from partially observed and nonstationary multivariate time series"
Atlantic Causal Inference Conference (Pittsburgh, USA)

2016 "Learning causal models from time series data with latent variables"**
9th International Conference of the ERCIM Working Group on Computational and Methodological Statistics (CMStatistics) (Seville, Spain)

2016 "Estimating causal effects with ancestral graph Markov models"
Eighth International Conference on Probabilistic Graphical Models (Lugano, Switzerland)

2016 "Decision making under causal uncertainty"
Explanation, Normativity, and Uncertainty in Economic Modelling at the London School of Economics (London, UK)

2016 "Decision making under causal uncertainty"
Munich-Sydney-Tilburg Conference on Evidence, Inference, and Risk (Munich, Germany)

2015 "Using graphical models for data-driven estimates of causal effects"
XII Conference of the International Network for Economic Method (Cape Town, South Africa)

INVITED SEMINARS

2024 "A cautious approach to constraint-based causal model selection based on equivalence tests"
Webinar on Causal Discovery in Health and Social Research, organized at U. Basel, Switzerland and U. Copenhagen, Denmark (Virtual)

2024 "Statistical challenges in the selection of causal graphical models ('causal discovery') and post-selection estimation of causal effects"
National Institute of Astrophysics, Optics, and Electronics in Mexico (Puebla, Mexico/Virtual)

2024 "Statistical challenges in the selection of causal graphical models ('causal discovery') and post-selection estimation of causal effects"
Department of Biostatistics, Johns Hopkins Bloomberg School of Public Health (Baltimore, USA)

2024 "Statistical challenges in the selection of causal graphical models ('causal discovery') and data-driven estimation of causal effects for public health"
Department of Biostatistics, New York University School of Global Public Health (New York, USA)

2024 Invited Discussant of presentation by I. Diaz
Online Causal Inference Seminar (Virtual)

2023 "A cautious approach to constraint-based causal model selection based on equivalence tests"
Causal Inference & Climate Informatics Group, German Aerospace Center's Institute of Data Science in Jena and TU Berlin (Virtual)

2023 "Estimating longitudinal causal effects of air pollution exposures using marginal structural models"
MESA AIR Group, University of Washington (Seattle, USA)

2022 "Identifying causal determinants of clinical outcomes from electronic health records using graphical structure learning"
Department of Computer Science, Williams College (Williamstown, USA)

2022 "Identifying causal determinants of clinical outcomes from electronic health records using graphical structure learning"
Columbia Seminar in Quantiative Methods for the Social Sciences (QMSS) (New York, USA)

2022 "Identifying causal determinants of clinical outcomes from electronic health records using graphical structure learning"
Division of Biostatistics, NYU Grossman School of Medicine (New York, USA)

2022 "Causal determinants of postoperative length of stay in cardiac surgery using causal graphical learning"
Fei Wang Group at Weill Cornell Medicine (Virtual/New York, USA)

2022 Invited Discussant of presentation by S. Wang
Online Causal Inference Seminar (Virtual)

2021 "Semiparametric inference for non-monotone missing-not-at-random data: the no self-censoring model"
Department of Statistics, Columbia University (New York, USA)

2021 "Explaining the behavior of black-box prediction algorithms with causal learning"
Online Causal Inference Seminar (Virtual)

2021 "Semiparametric inference for non-monotone missing-not-at-random data: the no self-censoring model"
Statistics Seminar, Ecole Polytechnique Federal de Lausanne (Virtual/Lausanne, Switzerland)

2021 "Quantitative approaches to fairness and equity for medical algorithms"
Welsh Center for Prevention, Epidemiology, and Clinical Research, Johns Hopkins University (Virtual/Baltimore, USA)

2021 "Explaining the behavior of black-box prediction algorithms with causal learning"
Copenhagen Causality Lab, Mathematical Sciences, University of Copenhagen (Virtual/Copenhagen, Denmark)

2020 Invited Discussant of presentation by M. Maathuis
Online Causal Inference Seminar (Virtual)

2020 "Causal model selection from nonstationary time series data"
Massive Data Institute, Georgetown University (Washington DC, USA)

2020 "Graphical causal model selection for applications in health and policy"
Division of Biostatistics, University of Pennsylvania (Philadelphia, USA)

2020 "Graphical causal model selection for applications in health and policy"
Department of Mathematics and Statistics, University of Maryland Baltimore County (Baltimore, USA)

2020 "Graphical causal model selection for applications in health and policy"
Department of Statistics, Rutgers University (New Brunswick, USA)

2020 "Graphical causal model selection for applications in health and policy"
Department of Biostatistics, Columbia School of Public Health (New York, USA)

2019 "A primer on causal structure learning with graphical models"
Division of General Medicine, Columbia University Medical Center (New York, USA)

2018 "Learning the structure of causal graphical models from observational data"
Department of Biostatistics (Causal Inference Group), Johns Hopkins School of Public Health (Baltimore, USA)

2018 "Learning the structure of causal graphical models from observational data"
Department of Biostatistics (Causal Inference Group), Harvard School of Public Health (Boston, USA)

2017 "Learning ancestral graph Markov models from multivariate time series"
Seminar in Applied Mathematics and Statistics, University of Copenhagen (Copenhagen, Denmark)

2017 "Graphical structure learning and data-driven causal inference for policy applications"
Depts of Statistics and Economics, University of California, Riverside (Riverside, USA)

2016 "Estimating causal effects with graphical models in systems with latent confounding"
Machine Learning Lunch Seminar at Carnegie Mellon University (Pittsburgh, USA)