ADÈLE HELENA RIBEIRO

PERSONAL INFORMATION

Born in Brazil, June 4, 1985

email adele.ribeiro@uni-muenster.de

website https://adele.github.io/

EDUCATION

Nov 28, 2018 — University of São Paulo, Brazil

Ph.D. in Computer Science

Institution: Institute of Mathematics and Statistics.
PhD dissertation: *Identification of Causality in Genetics and Neuroscience.* DOI:10.11606/T.45.2019.tde-15032019-190109
Advisor: Prof. Dr. André Fujita / Co-Advisor: Prof. Dr. Júlia Maria Pavan Soler

Jun 3, 2014 — University of São Paulo, Brazil

M.Sc. in Computer Science

Institution: Institute of Mathematics and Statistics.
Master's thesis: *Gene expression analysis taking into account measurement errors and application to real data.* DOI:10.11606/D.45.2014.tde-04082014-163616.
Advisor: Prof. Dr. Roberto Hirata Jr.

Mar 1, 2012 — University of São Paulo, Brazil

B.Sc. in Applied Mathematics

Institution: Institute of Mathematics and Statistics.
Senior thesis: *Analysis of Pyroelectric Infrared (PIR) sensor output signals.*
Advisor: Prof. Dr. Roberto Hirata Jr.

ACADEMIC POSITIONS

Nov 2024 – Present — University of Münster, Germany

Postdoctoral Researcher

Head of the CausalAI4Health Research Group.
Institution: Institute of Medical Informatics, Faculty of Medicine.
Mentor: Prof. Dr. Dominik Heider

Oct 2023 – Oct 2024 — Heinrich Heine University of Düsseldorf, Germany

Visiting Researcher

Institution: ML for Medical Data Lab, Faculty of Mathematics and Natural Sciences.

Oct 2022 – Oct 2024 — Philipps University of Marburg, Germany

Postdoctoral Researcher

Institution: AI in Biomedicine Lab, Faculty of Mathematics and Computer Science.
Supervisor: Prof. Dr. Dominik Heider

Sept 2019 – Aug 2022 — Columbia University, USA

Postdoctoral Researcher

Institution: Causal AI Lab, Department of Computer Science and Data Science Institute.
Supervisor: Prof. Dr. Elias Bareinboim.

Feb 2019 – Aug 2019 — Heart Institute, University of São Paulo, Brazil

Postdoctoral Researcher

Institution: Laboratory of Genetics and Molecular Cardiology.
Supervisor: Prof. Dr. José Eduardo Krieger.

Fall 2017 — Princeton University, USA

Doctoral Research Internship

Institution: Neuroscience Institute
Project: *Deep Learning for pose representation and dynamics modeling of marmoset monkeys.*
Supervisor: Prof. Dr. Asif A. Ghazanfar.

PEER-REVIEWED PUBLICATIONS

Research Article

Yvernes, C., Devijver, E., **Ribeiro, A. H.**, Clausel, M., and Gaussier, E. (2025) Relaxing partition admissibility in cluster-dags: a causal calculus with arbitrary variable clustering. Advances in Neural Information Processing Systems (NeurIPS 2025).

Research Article

Anand, T., **Ribeiro, A. H.**, Tian, J., Hripcsak G., and Bareinboim, E. (2025). Causal discovery over clusters of variables in Markovian systems. Advances in Neural Information Processing Systems (NeurIPS 2025). (Link)

Research Article Thanarajah, S. E., **Ribeiro, A.H.**, . . . , Heider, D, Dannlowski, U., Hahn, T. (2024). Soft drink consumption and depression mediated by gut microbiome alterations. JAMA Psychiatry. DOI: 10.1001/jamapsychiatry.2025.2579. (Link)

Research Article **Ribeiro, A.H.**, Soler, J.M.P., Corder, R.M., Ferreira, M.U., Heider, D. (2025). From Bites to Bytes: Understanding How and Why Individual Malaria Risk Varies Using Artificial Intelligence and Causal Inference. Frontiers in Genetics. DOI: 10.3389/fgene.2025.1599826. (Link)

Research Article **Ribeiro, A. H.**, Crnkovic, M., Pereira, J. L., Fisberg, R. M., Sarti, F. M., Rogero, M. M., Heider, D., and Cerqueira, A. (2024). AnchorFCI: Harnessing Genetic Anchors for Enhanced Causal Discovery of Cardiometabolic Disease Pathways. Frontiers in Genetics 15:1436947. DOI: 10.3389/fgene.2024.1436947. (Link)

Research Article da Silva, T., Silva, E., Góis, A., Heider, D., Kaski, S. and Mesquita, D.*, **Ribeiro, A. H.*** (2024). Human-Aided Discovery of Ancestral Graphs. LXAI Workshop at Neural Information Processing Systems (NeurIPS 2024) (Link)

Research Article Leite, J. M. R., **Ribeiro, A. H.**, Pereira, J. L., de Souza, C. A., Heider, D., . . . & Sarti, F. M. (2024). Missense genetic variants in major bitter taste receptors are associated with diet quality and food intake in a highly admixed underrepresented population. Clinical Nutrition ESPEN. (Link)

Research Article Meneguitti Dias, F., Ribeiro, E., **Ribeiro, A. H.**, Krieger, J., Antonio Gutierrez, M. (2023) *Artificial Intelligence-Driven Screening System for Rapid Image-Based Classification of 12-Lead ECG Exams: A Promising Solution for Emergency Room Prioritization.* IEEE Access, (Link)

Research Article Tajabadi, M, Grabenhenrich, L., **Ribeiro, A. H.**, Leyer, M., Heider D. (2023) *Sharing Data With Shared Benefits: Artificial Intelligence Perspective.* J Med Internet Res 2023;25:e47540 (Link)

Review Article Mundt, M., Cooper, K.W., Dhami, D.S., **Ribeiro, A. H.**, Smith, J.S., Bellot A., Hayes, T. (2023) *Continual Causality: A Retrospective of the Inaugural AAAI-23 Bridge Program.* Proceedings of The First AAAI Bridge Program on Continual Causality, PMLR 208:1-10. (Link)

Research Article Anand, T. V.*, **Ribeiro, A. H.***, Tian, J., Bareinboim, E. (2023). Causal Effect Identification in Cluster DAGs. Proceedings of the AAAI Conference on Artificial Intelligence, 37(10), 12172-12179. (AAAI-23) – (Link). ArXiv version with Supplementary Material (Link) – Selected for Oral Presentation.

Research Article Jaber, A., **Ribeiro, A. H.**, Zhang, J., Bareinboim, E. (2022) *Causal Identification under Markov equivalence: Calculus, Algorithm, and Completeness.* Advances in Neural Information Processing Systems, 35, 3679-3690. (NeurIPS-22). (Link) – Highlighted Paper ($<$ 2%, out of 10,411).

Research Article Dias, F. M., Samesima, N., **Ribeiro, A.**, Moreno, R. A., Pastore, C. A., Krieger, J. E., and Gutierrez, M. A. (2021). *2D Image-Based Atrial Fibrillation Classification.* In 2021 Computing in Cardiology (CinC), volume 48, pages 1–4. IEEE. (Link)

Research Article **Ribeiro, A. H.**, Vidal, M. C., Sato, J. R., and Fujita, A. (2021). *Granger Causality among Graphs and Application to Functional Brain Connectivity in Autism Spectrum Disorder.* Entropy. 23(9):1024. (Link)

Research Article **Ribeiro, A. H.**, Soler, J. M. P.. (2020). *Learning Genetic and Environmental Graphical Models from Gaussian Family Data.* Statistics in Medicine. 39: 2403– 2422. (Link)

Research Article **Ribeiro, A. H.**, Soler, J. M. P., R. Hirata Jr.. (2019). *Variance-Preserving Estimation of Intensity Values Obtained from Omics Experiments.* Frontiers in Genetics, 10:855. (Link)

Research Article **Ribeiro, A. H.**, Lotufo, P., Fujita, A, Goulart, A., Chor, D., Mill, J. G., Bensenor, I., Santos, I. S. (2017). *Association Between Short-Term Systolic Blood Pressure Variability and Carotid Intima-Media Thickness in ELSA-Brasil Baseline*. American Journal of Hypertension, 30:954–960. (Link)

Springer Book Chapter **Ribeiro, A. H.**, Soler, J. M. P., Neto, E. C., Fujita, A. (2016). *Causal Inference and Structure Learning of Genotype-Phenotype Networks Using Genetic Variation.* In Big Data Analytics in Genomics. Springer International Publishing, New York, p. 89-143. (Link).

MANUSCRIPTS UNDER REVIEW

Research Article **Ribeiro, A. H.**, Heider, D. (2025). dcFCI: Robust Causal Discovery Under Latent Confounding, Unfaithfulness, and Mixed Data. ArXiv preprint arXiv:2505.06542 (Link)

Research Article da Silva, T., Silva, E., Góis, A., Heider, D., Kaski, S. and Mesquita, D.*, **Ribeiro, A. H.*** (2024). Expert-Aided Causal Discovery of Ancestral Graphs. ArXiv preprint arXiv:2309.12032 (Link)

Research Article Fehse L.*, **Ribeiro, A.H.***, Winter, N. R., . . . , Heider, D., Hahn, T. (2024). From Gut to Brain: Evidence for a Causal Contribution of Gut-Microbiota to Major Depressive Disorder in Humans. – MedRxiv preprint, doi: 10.1101/2024.12.05.24318549 (Link)

*Equal contribution

ASSOCIATION IN RESEARCH GRANTS

Dec 2025– Nov 2030 BMFTR Starting Grant for Independent AI Research Group in the funding priority "Future eHealth"

BMFTR
Title: CausalAI4Health: Advancing Trustworthy and Responsible Causal Artificial Intelligence for Precision Medicine and Public Health
Funds: 1.528.810,21 €
My Role: Principal Investigator.

Aug 2024– Jul 2025 BMFTR funding for exploratory and networking measures with partners in Latin America and the Caribbean

BMFTR
Title: Deciphering the multiple causes of malaria risk in Amazon communities: A collaborative approach incorporating AI and causality analysis — Grant number: 01DN24022
Funds: ≈ 30,000€
Principal Investigator: Prof. Dr. Dominik Heider. **My Role:** Associate Researcher.

Jul 2021– Jul 2023 Blavatnik Fund for Engineering Innovations in Health

Blavatnik
Title: Causal Data Science: Towards an Accelerated Process of Cancer Translational Research
Funds: ≈ 170,000€
Principal Investigator: Prof. Dr. Elias Bareimboim. **My Role:** Associate Researcher.

Fev 2019– Jan 2025 FAPESP - Thematic Grants

FAPESP
Title: Lifestyle, biochemical and genetic markers as cardiometabolic risk factors: Health Survey in São Paulo City. — Grant number: 17/05125-7.
Principal Investigator: Prof. Dr. Regina Mara Fisberg. **My Role:** Associate Researcher.

Aug 2023 – Jul 2025 FAPESP - Regular Grants

FAPESP
Title: Reimagining AI for a world on fire.
Principal Investigator: Prof. Dr. Diego Parente Paiva Mesquita. **My Role:** Associate Researcher.

Sep 2023 – Oct 2023 FAPESP - Research Internship Abroad

FAPESP
Title: Application of causal structure learning algorithms to obesity and other risk factors for cardiovascular diseases. – Grant number: 23/08647-5
Principal Investigator: Prof. Dr. Andressa Cerqueira. **My Role:** Supervisor.

SCHOLARSHIPS, FELLOWSHIPS, AND AWARDS

Sep 2021 DAAD Postdoc-NeT-AI Fellowship

DAAD
DAAD award for outstanding international early career researchers in the field of Artificial Intelligence in Medicine, Federal Ministry of Education and Research, Germany.

Sep 2020– Aug 2022 DSI Postdoctoral Fellowship

Columbia Uni
Data Science Institute (DSI) Post-Doctoral Fellows Program, Columbia University, USA.

Jan 2019– Aug 2019 Postdoctoral Research Fellowship

CAPES
Coordination for the Improvement of Higher Education Personnel, Brazil.

Sep 2017 – Dec 2017 Ph.D. Visiting Student at Princeton University

CAPES
Coordination for the Improvement of Higher Education Personnel, Brazil

Aug 2014– Jul 2018 PhD Graduate Research Scholarship

CAPES
Coordination for the Improvement of Higher Education Personnel, Brazil.

Mar 2012 – Feb 2014 M.Sc. Graduate Research Scholarship

CAPES/CNPq
National Council of Technological and Scientific Development, Brazil.

OPEN-SOURCE LIBRARIES

2025 – Present dcFCI on GitHub
R package Robust causal discovery under latent confounding, unfaithfulness, and mixed data.

2024 – Present anchorFCI on GitHub
R package Implementation of the anchorFCI algorithm, an extension of the FCI algorithm.

2022 – Present PAG-ID on GitHub
R package Algorithms for (Conditional) Causal Identification in Partial Ancestral Graphs.

2018 – Present FamilyBasedPGMs on GitHub
R package Methods for Learning Genetic and Environmental Graphical Models from Family Data.

2018 – Present omicsMA on GitHub
R package Variance-Preserving Estimation and Normalization of M-A Values from Omics Experiments.

POSTERS AND ABSTRACTS

September 2025 German Conference on Bioinformatics 2025
Research Poster **Ribeiro, A. H.** & Heider, D. (2025). AnchorFCI: Causal Discovery with Genetic Anchors for Enhanced Robustness and Inferencial Power. (Poster Presentation)

December 2024 LXAI @ NeurIPS 2024
Research Poster da Silva, T., Silva, E., Góis, A., Heider, D., Kaski, S. and Mesquita, D.*, **Ribeiro, A. H.*** (2024). Human-Aided Discovery of Ancestral Graphs. LXAI Workshop at NeurIPS. (Poster Presentation)

April 2024 13th Sino-German Frontiers of Science Symposium
Research Poster **Ribeiro, A. H.**, Fehse, L., Winter, N., Welzel, M., Kircher, T., Thanarajah, S. E., Dannlowski, U., Heider, D., Hahn, T. Uncovering Gut Microbiota's Causal Role in Major Depressive Disorder – Shanghai, China – Chinese Academy of Sciences and Humboldt Foundation (Poster Presentation)

July 2023 10th International Contrastive Linguistics Conference
Oral Presentation Levshina, N., **Ribeiro, A. H.** Who did What to Whom: Measuring and explaining cross-linguistic differences – Mannheim, Germany. (Conference Abstract)

July 2018 XXIXth International Biometric Conference, Spain
Oral Presentation **Ribeiro, A. H.**, Soler, J. M. P., Fujita, A. Learning Genetic and Environmental Causal Graphical Models in Family-Based Studies. – Barcelona, Spain. (Conference Abstract)

Oct 2017 X-Meeting - 14th International Conference of the AB3C
Research Poster **Ribeiro, A. H.**, Sato, J. R., Fujita, A. (2018). Granger Causality Between Graphs and Applications in Functional Brain Networks. *X-Meeting - 14th International Conference of the AB3C* , October 24th - 26th, 2018, São Pedro, SP, Brazil. (Poster Presentation) – Best Poster Award

July 2017 3^o Congresso de Graduação da Universidade de São Paulo
Educational Poster Soler, J. M. P., **Ribeiro, A. H.**, Jahnke, M. R.. A produção da cerveja produzindo conhecimento. 3^o *Congresso de Graduação da USP*, 2017, SP, Brazil. (Poster Presentation)

July 2016 XXVIII-th International Biometric Conference, Canada.
Conference Abstract **Ribeiro, A. H.**, Soler, J. M. P. , Fujita, A. A Comparative Study of Algorithms for Learning Causal Genotype–Phenotype Networks. *Abstracts for the XXVIIIth International Biometric Conference*, 10-15 July, 2016, Victoria, British Columbia, Canada, International Biometric Society. ISBN 978-0-9821919-4-1. (Poster Presentation)

May 2015 SID 2015, 74th Annual Meeting of the Society for Investigative Dermatology, Atlanta, GA, USA.
Conference Abstract Swinka, BB, Carvalho, CM, Weihermann, A, Schuck, DC, Boldrini, N, Silva, VV, Costa, MT, **Ribeiro, AH**, Fujita, A, Brohem CA, and Lorencini M. Analysis of extracellular-matrix and cell-adhesion genes modulated by mechanical massage applied in combination with a cosmetic emulsion. *Supplement issue of the Journal of Investigative Dermatology, Epidermal Structure & Barrier Function*, v. 135, p. S58-S69, 2015. DOI: 10.1038/jid.2015.71

October 2014 ISCB-Latin America X-Meeting on Bioinformatics
Research Poster **Ribeiro, A. H.**, Hirata Jr., R. , Soler, J. M. P. Two-color microarray data analysis taking into account probe-level inaccuracies. Belo Horizonte, MG, Brazil. (Poster Presentation)

STUDENT SUPERVISION

ONGOING PHD THESIS

Max Hahn (since 2024) – *Federated and Scalable Causal Discovery Algorithms under Latent Confounding and Heterogeneous Populations.* Institute of Medical Informatics, University of Münster, Germany.

Azlaan Mustafa Samad (since 2024). *Causal Abstraction and Representation Learning under Latent Confounding*. Department of Computer Science, Leibniz University Hannover & CAIMed, Germany (with Prof. Dr. Wolfgang Nejdl)

ONGOING MASTER'S THESIS

Aaron Zumdick (since 2025) – *Conditional Independence Tests for Causal Discovery with Multiple Variance Components and Heterogeneous Variables: Application to Understanding Variability in Malaria Risk in the Brazilian Amazon.* University of Münster and University of Leipzig, Germany

Bárbara A. A. Sequeira, B.A.A. (since 2025) – *Towards data driven catalysis: setting the ground for cause-effect relationships.* Chemical Engineering Department, Instituto Superior Técnico, Lisboa, Portugal. (with Prof. Dr. Pedro Simões)

COMPLETED BACHELOR THESES

Taher Jallouli (2023). *Causal Effect Estimation using Gaussian Processes*. Department of Mathematics and Computer Science, Philipps University of Marburg, Germany.

Alina Zajak (2024). *Privacy-Preserving Causal Discovery from Multiple Overlapping Observational Datasets.* Department of Computer Science, Heinrich Heine University of Düsseldorf.

Duc Thong Truong (2024). *Integrating StringDB and Ancestral GFlowNets for the Discovery of Causal Genes in Cancer: A User-Friendly Tool and an Application to Lung Cancer.* Department of Computer Science, Heinrich Heine University of Düsseldorf.

COMPLETED RESEARCH INTERNSHIP PROJECTS

Jean M. R. S. Leite (April 2023 - April 2024). *Beyond the prediction of health care costs related to dyslipidemias and other cardiometabolic risk factors: explainable analysis through causal structure learning and inference algorithms.* Doctoral Research Internships Abroad (BEPE) at Philipps University of Marburg, funded by FAPESP #22/14123-6

Milena Crnkovic Luzia (Sept - Oct 2023) *Application of Causal Structure Learning Algorithms to Obesity and Other Risk Factors for Cardiovascular Diseases.* Research Internships Abroad (BEPE) at Philipps University of Marburg, funded by FAPESP #23/08647-5

ACADEMIC SERVICE

Aug 2025 — Causal Abstractions and Representation (CAR)
Workshop Organizer
Workshop at UAI-2025. With other organizers from Technische Universität Berlin and Universities of Warwick, Pisa, and Bergen.

Feb 2023 and Feb 2024 — Continual Causality – I and II Editions
Workshop Organizer
Bridge Program at AAAI-24 and AAAI-2024. With other organizers from TU Darmstadt, Hessian.AI, NAVER Labs Europe, Georgia Tech, University of California, TU Eindhoven, and Deutches Zentrum fur Luft-und Raumfahrt.

Dec 2021 — Causal Inference & Machine Learning: Why now?
Workshop Organizer
WHY-21 Workshop at NeurIPS-2021. Advised by Elias Bareinboim (Columbia University), Bernhard Scholkopf (Max Planck Institute), Terry Sejnowski (Salk Institute & UCSD), Yoshua Bengio, (University of Montreal & Mila), Judea Pearl, (UCLA).

2018 - Present — Conference and Journal Reviewer
Reviewer
(2021 - Present) NeurIPS, AAAI, ICML UAI, CLeaR, JMLR, Neuro Causal and Symbolic AI (nCSI), WHY (2021), XXXVIII-th CNMAC (2018).

INVITED TALKS

December 2024 — L3S Research Center, Leibniz University, and CAIMed
Invited Talk
L3S Research Center, Leibniz University, and Lower Saxony research Center for Artificial Intelligence and Causal Methods in Medicine (CAIMed), Hannover, Germany
Title: From Theory to Practice: Advancing Causal Inference for Real-World Applications in Health Sciences

October 2024 — Seminar at Université Grenoble Alpes
Invited Talk — *Institut d'Informatique et Mathématiques Appliquées de Grenoble (IMAG), France*
Title: Recent Advances in Causal Inference under Limited Domain Knowledge

June 2024 — TUM Seminar on Statistics and Data Science
Invited Talk — *Department of Mathematics, Technical University of Munich (TUM), Germany*
Title: Recent Advances in Causal Inference under Limited Domain Knowledge

May 2024 — 68th Annual Meeting of RBras
Invited Talk — *Brazilian Region of the International Biometrics Society (RBras), ESALQ/USP, in Piracicaba, SP, Brazil*
Title: From Observations to Causality: Recent Advances and Ongoing Challenges

August 2023 — FGV EMAp - School of Applied Mathematics
Invited Talk — *School of Applied Mathematics of Getulio Vargas Foundation, Rio de Janeiro, Brazil.*
Title: Recent Advances in Causal Inference under Limited Domain Knowledge

April 2023 — Workshop on Causal Representation Learning
Invited Talk — *Max Planck Institute for Intelligent Systems, Tübingen, Germany*
Title: Effect Identification in Cluster Causal Diagrams.

August 2022 — DAAD Postdoc-NeT-AI Tour – Germany
Invited Talks — *Institute of Information Systems & Institute for Medical Biometrics and Statistics at the University of Lübeck; Institute for Computational Systems Biology at the University of Hamburg; Centre for Cognitive Science at TU Darmstadt; Center for Systems Biology and Department of Computer Science at TU Dresden; and Helmholtz Center Munich*
Title: Causal Inference from Observational Data in Partially Understood Domains

August 2022 — Future Bioinformatics Workshop, Germany
Invited Talk — **Title:** Causal AI: Towards Explainable, Generalizable, and Trustworthy Decision-Making.

May 2022 — Interinstitutional Graduate Program in Statistics
Invited Talk — *Interinstitutional Graduate Program in Statistics (PIPGES) – Federal University of Sao Carlos (UFSCar) and University of Sao Paulo (USP)*
Title: Causal Effect Identification in Partially Understood Domains.

Dec 2021 — WHY-21 Workshop at NeurIPS-2021
Invited Talk — *Causal Inference & Machine Learning: Why now?* – Virtual Conference.
Title: Effect Identification in Cluster Causal Diagrams.

Nov 2021 — National Institute on Aging (NIA)
Invited Talk — *Laboratory of Epidemiology & Population Science (LEPS) at National Institute on Aging (NIA)*
Title: Causal Inference and the Data-Fusion Problem.

Nov 2021 — OECD workshop on AI and the productivity of science
Invited Talk — with Elias Bareinboim. **Title:** Developing causal AI: its importance and an overview.

TEACHING EXPERIENCE

LECTURER

Oct 2023 – Sep 2024 — Heinrich Heine University of Düsseldorf, Germany
Department of Mathematics and Natural Sciences, Germany. Courses: Causality, Topics in Causality.

Mar 2023–October 2023 — Phillips University of Marburg, Germany
Department of Mathematics and Computer Science, Germany. Course: Causal Data Science: Theoretical Foundations and Algorithms

ASSISTANT PROFESSOR

Feb 2018–Jul 2018 — Institute of Education and Research (Insper)
Computer Engineering Department, Inper, SP, Brazil. Course: Software Design using Python.

TEACHING ASSISTANT

Mar 2012–Jul 2017 — University of São Paulo (USP), SP, Brazil
Courses: Statistical Design of Experiments; Multivariate Data Analysis; Statistical Methods for Genetics and Genomics; Statistical techniques, programming and simulation (at IME-USP); Numerical Calculus with Applications in Physics; Mathematical Modeling (at IAG-USP); Introduction to Computer Programming; Linear Programming; Numerical Methods for Linear Algebra; Mathematics, Architecture and Design (at FAU-USP)

SHORT COURSES, AND TUTORIALS

August 2025 — 69th Annual Meeting of RBras

3-hour Tutorial — *69th Annual Meeting of Brazilian Region International Biometric Society, Federal University of Espírito Santo (UFES), Brazil – with Júlia M. P. Soler*
Title: Causal Learning and Inference: A Practical Guide.

February 2025 — 3rd TACsy PhD School - Leipzig
5-day Course — *Faculty of Mathematics and Computer Science, Bioinformatics Department, University Leipzig.*
Title: Advancing causality inference for scientific discovery

July 2024 — 2nd European Summer School on Artificial Intelligence
5-day Course — *Department of Informatics and Telecommunications National and Kapodistrian University of Athens, Athens, Greece* – with Devendra Dhami, and Matej Zecevic.
Title: Machines Climbing Pearl's Ladder of Causation

July 2024 — 14th Lisbon Machine Learning School (LxMLS)
3-hour Tutorial — *Instituto Superior Técnico, Lisbon, Portugal.*
Title: Introduction to Causal Inference

June 2024 — 6th Probabilistic AI School (ProbAI)
3-hour tutorial — *Frederiksberg Campus of University of Copenhagen, Copenhagen, Denmark*
Title: Introduction to Causal Inference

January 2024 — Tropical Probabilistic AI School
3-hour tutorial — *Hosted with the EMAp FGV Summer School on Data Science 2024, Rio de Janeiro, Brazil*
Title: Introduction to Causal Inference

July 2023 — 1st European Summer School on Artificial Intelligence
5-day Course — *Faculty of Computer and Information Science, University of Ljubljana, Slovenia* – with Devendra Dhami, and Matej Zecevic.
Title: Machines Climbing Pearl's Ladder of Causation

July 2023 — 13rd Lisbon Machine Learning School (LxMLS)
3-hour Tutorial — *Instituto Superior Técnico, Lisbon, Portugal.*
Title: Causality and its Role in Reasoning, Explainability, and Generalizability

June 2023 — Nordic Probabilistic AI School
3-hour tutorial — *Norwegian University of Science and Technology (NTNU), Trondheim, Norway*
Title: Causal Inference: Towards Explainable, Generalizable, and Trustworthy AI

June 2023 — Oregon State University
Invited Lecture — *School of Electrical Engineering and Computer Science (EECS) at Oregon State University*
Title: Causal Identification in Markov Equivalence Classes

February 2023 — Continual Causality - Bridge Program at AAAI
90-min Tutorial — *Walter E. Washington Convention Center, Washington DC, USA*
Title: Putting the Causality inMA Continual Causality.

July 2022 — 12th Lisbon Machine Learning School (LxMLS)
3-hour Tutorial — *Instituto Superior Técnico, Lisbon, Portugal* – with Elias Bareinboim.
Title: Causal AI: Towards Explainable, Generalizable, and Trustworthy Decision-Making.

Sep 2021 — University of Brasilia (UnB), Brasilia, Brazil.
Invited Lecture — *Graduate Seminars Series - Statistics Department*, University of Brasilia (UnB)
Title: Causal Inference and Data-Fusion.

July 2021 — 11st Lisbon Machine Learning School (LxMLS)
3-hour Tutorial — *Virtual Conference* – with Elias Bareinboim.
Title: Causal Data Science: An Introduction to Causal Inference and Data Fusion.

Jun 2021 — Perspectives in Statistics - IME-USP
Invited Lecture — *Statistics Department, University of Sao Paulo (IME - USP), Sao Paulo, SP, Brazil.*
Title: Causal Inference from Observational Studies.

December 2020 — 76th Annual Deming Conference on Applied Statistics.
3-hour Tutorial — Virtual Conference – with Mohammad Adibuzzaman and Elias Bareinboim.
Title: Causal Inference in the Health Sciences.

November 2020 — American Medical Informatics Association (AMIA)
3.5-hour Tutorial — Virtual Conference – with Mohammad Adibuzzaman and Elias Bareinboim.
Title: Causal Inference in the Health Sciences.

Oct 2020 — Biostatistics and Biometrics Seminar Series - UNESP
Invited Lecture
Sao Paulo State University - UNESP, Botucatu, SP, Brazil.
Title: Causal Inference from Observational Studies.

Mar 2019 — Statistics Seminar Series – UFSCar & USP
Invited Lecture
Federal University of Sao Carlos and University of Sao Paulo, Sao Carlos, SP, Brazil.
Title: Learning Genetic and Environmental Graphical Models from Gaussian Family Data.

Jan 2017 — Graduate Summer School – UNESP
9-hour Short Course
São Paulo State University - UNESP, Presidente Prudente, Brazil – with Julia M. P. Soler.
Title: Dimensionality Reduction and Structure Learning with Applications to Genomics.

May 2016 — 61st Annual Meeting of RBras - IBS
4-hour Short Course
61st Annual Meeting of the Brazilian Region (RBras) International Biometric Society (IBS), Bahia, Brazil – with Julia M. P. Soler.
Title: Dimensionality Reduction Applied to Genomics.

OTHER SKILLS

Programming Languages: Python, R, Matlab, C#, C++, C, Java, Ruby, PHP, ADA, APQ, Corba, MySQL, PostgreSQL.

Languages:
- Portuguese · Native language.
- English · Fluent.
- German · Beginner.

November 13, 2025