

# ADÈLE HELENA RIBEIRO

## PERSONAL INFORMATION

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*website* <https://adele.github.io/>



## EDUCATION

|   |                      |  |
|---|----------------------|--|
| <i>Ph.D. in<br/>Computer Science</i>    | <i>November 2018</i> | University of São Paulo, Brazil<br>Institution: Institute of Mathematics and Statistics.<br>PhD dissertation: <i>Identification of Causality in Genetics and Neuroscience</i> .<br>DOI: <a href="https://doi.org/10.11606/T.45.2019.tde-15032019-190109">10.11606/T.45.2019.tde-15032019-190109</a><br>Advisor: Prof. Dr. André Fujita / Co-Advisor: Prof. Dr. Júlia Maria Pavan Soler |
| <i>M.Sc. in<br/>Computer Science</i>    | <i>Jun 2014</i>      | University of São Paulo, Brazil<br>Institution: Institute of Mathematics and Statistics.<br>Master's thesis: <i>Gene expression analysis taking into account measurement errors and application to real data</i> . DOI: <a href="https://doi.org/10.11606/D.45.2014.tde-04082014-163616">10.11606/D.45.2014.tde-04082014-163616</a> .<br>Advisor: Prof. Dr. Roberto Hirata Jr.         |
| <i>B.Sc. in Applied<br/>Mathematics</i> | <i>Dec 2011</i>      | University of São Paulo, Brazil<br>Institution: Institute of Mathematics and Statistics.<br>Senior thesis: <i>Analysis of Pyroelectric Infrared (PIR) sensor output signals</i> .<br>Advisor: Prof. Dr. Roberto Hirata Jr.   |

## ACADEMIC POSITIONS

|   |                             |   |
|---|-----------------------------|---|
| <i>Postdoctoral<br/>Researcher</i>      | <i>Nov 2024 – Present</i>   | University of Münster, Germany<br>Institution: Institute of Medical Informatics., Faculty of Medicine.<br>Supervisor: Prof. Dr. Dominik Heider  |
| <i>Visiting<br/>Researcher</i>          | <i>Oct 2023 – Oct 2024</i>  | Heinrich Heine University of Düsseldorf, Germany<br>Institution: ML for Medical Data Lab, Faculty of Mathematics and Natural Sciences.  |
| <i>Postdoctoral<br/>Researcher</i>      | <i>Oct 2022 – Oct 2024</i>  | Philipps University of Marburg, Germany<br>Institution: AI in Biomedicine Lab, Faculty of Mathematics and Computer Science.<br>Supervisor: Prof. Dr. Dominik Heider   |
| <i>Postdoctoral<br/>Researcher</i>      | <i>Sept 2019 – Aug 2022</i> | Columbia University, USA<br>Institution: Causal AI Lab, Department of Computer Science and Data Science Institute.<br>Supervisor: Prof. Dr. Elias Bareinboim.   |
| <i>Postdoctoral<br/>Researcher</i>      | <i>Feb 2019 – Aug 2019</i>  | Heart Institute, University of São Paulo, Brazil<br>Institution: Laboratory of Genetics and Molecular Cardiology.<br>Supervisor: Prof. Dr. José Eduardo Krieger.  |
| <i>Doctoral Research<br/>Internship</i> | <i>Fall 2017</i>            | Princeton University, USA<br>Institution: Neuroscience Institute<br>Project: <i>Deep Learning for pose representation and dynamics modeling of marmoset monkeys</i> .<br>Supervisor: Prof. Dr. Asif A. Ghazanfar. |

## PEER-REVIEWED PUBLICATIONS

|                         |  |
|-------------------------|--|
| <i>Research Article</i> | <b>Ribeiro, A. H.</b> , 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. <i>Frontiers in Genetics</i> 15:1436947. DOI: 10.3389/fgene.2024.1436947. ( <a href="#">Link</a> ) |
| <i>Research Article</i> | da Silva, T., Silva, E., Góis, A., Heider, D., Kaski, S. and Mesquita, D. *, <b>Ribeiro, A. H.</b> * (2024). Human-Aided Discovery of Ancestral Graphs. LXAI Workshop at Neural Information Processing Systems (NeurIPS 2024) ( <a href="#">Link</a> )   |

- 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., Dhimi, 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](#)) – 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* da Silva, T., Silva, E., Góis, A., Heider, D., Kaski, S. and Mesquita, D.\*, **Ribeiro, A. H.\*** (2024). Human-in-the-Loop Causal Discovery under Latent Confounding using Ancestral GFlowNets. *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. – Manuscript available upon request.
- Research Article* Thanarajah, S. E., **Ribeiro, A.H.**, ... , Heider, D., Dannlowski, U., Hahn, T. (2024). The bitter taste of sweet drinks: Increased consumption of soft drinks is linked to depression via gut microbiota alterations. – Manuscript available upon request.

\*Equal contribution

## ASSOCIATION IN RESEARCH GRANTS

|           |                     |  |
|-----------|---------------------|--|
|           | Aug 2024– Jul 2025  | BMBF funding for exploratory and networking measures with partners in Latin America and the Caribbean  |
| BMBF      |                     | <b>Title:</b> Deciphering the multiple causes of malaria risk in Amazon communities: A collaborative approach incorporating AI and causality analysis — Grant number: 100668309<br><b>Funds:</b> ≈ 20,000€<br><b>Principal Investigator:</b> Prof. Dr. Dominik Heider. <b>My Role:</b> Associate Researcher. |
|           | Jul 2021– Jul 2023  | Blavatnik Fund for Engineering Innovations in Health   |
| Blavatnik |                     | <b>Title:</b> <b>Causal Data Science: Towards an Accelerated Process of Cancer Translational Research</b><br><b>Funds:</b> ≈ 170,000€<br><b>Principal Investigator:</b> Prof. Dr. Elias Bareimboim. <b>My Role:</b> Associate Researcher.  |
|           | Feb 2019– Jan 2025  | FAPESP - Thematic Grants   |
| FAPESP    |                     | <b>Title:</b> <b>Lifestyle, biochemical and genetic markers as cardiometabolic risk factors: Health Survey in São Paulo City.</b> — Grant number: 17/05125-7.<br><b>Principal Investigator:</b> Prof. Dr. Regina Mara Fisberg. <b>My Role:</b> Associate Researcher.   |
|           | Aug 2023 – Jul 2025 | FAPESP - Regular Grants  |
| FAPESP    |                     | <b>Title:</b> <b>Reimagining AI for a world on fire.</b><br><b>Principal Investigator:</b> Prof. Dr. Diego Parente Paiva Mesquita. <b>My Role:</b> Associate Researcher.   |
|           | Sep 2023 – Oct 2023 | FAPESP - Research Internship Abroad  |
| FAPESP    |                     | <b>Title:</b> <b>Application of causal structure learning algorithms to obesity and other risk factors for cardiovascular diseases.</b> – Grant number: 23/08647-5<br><b>Principal Investigator:</b> Prof. Dr. Andressa Cerqueira. <b>My Role:</b> Supervisor.   |

## SCHOLARSHIPS, FELLOWSHIPS, AND AWARDS

|              |                     |   |
|--------------|---------------------|---|
|              | Sep 2021            | <b>DAAD Postdoc-NeT-AI Fellowship</b>   |
| 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

|           |                |  |
|-----------|----------------|--|
|           | 2024 – Present | <b>anchorFCI on GitHub</b>   |
| R package |                | Implementation of the anchorFCI algorithm, an extension of the FCI algorithm.          |
|           | 2022 – Present | <b>PAG-ID on GitHub</b>  |
| R package |                | Algorithms for (Conditional) Causal Identification in Partial Ancestral Graphs.        |
|           | 2018 – Present | <b>FamilyBasedPGMs on GitHub</b>   |
| R package |                | Methods for Learning Genetic and Environmental Graphical Models from Family Data.      |
|           | 2018 – Present | <b>omicsMA on GitHub</b>   |
| R package |                | Variance-Preserving Estimation and Normalization of M-A Values from Omics Experiments. |

## POSTERS AND ABSTRACTS

- Research Poster* December 2024 LXAI @ NeurIPS 2024  
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)
- Research Poster* April 2024 13th Sino-German Frontiers of Science Symposium  
**Ribeiro, A. H.**, Fehse, L., Winter, N., Welzel, M., Kircher, T., Thanarajah, S. E., Dannowski, 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)
- Oral Presentation* July 2023 10th International Contrastive Linguistics Conference  
Natalia Levshina, **Ribeiro, A. H.** Who did What to Whom: Measuring and explaining cross-linguistic differences – Mannheim, Germany. (Conference Abstract)
- Oral Presentation* July 2018 XXIXth International Biometric Conference, Spain  
**Ribeiro, A. H.**, Soler, J. M. P., Fujita, A. Learning Genetic and Environmental Causal Graphical Models in Family-Based Studies. – Barcelona, Spain. (Conference Abstract)
- Educational Poster* July 2017 3º Congresso de Graduação da Universidade de São Paulo  
Soler, J. M. P., **Ribeiro, A. H.**, Jahnke, M. R.. A produção da cerveja produzindo conhecimento. 3º Congresso de Graduação da USP, 2017, SP, Brazil. (Poster Presentation)
- Conference Abstract* July 2016 XXVIII-th International Biometric Conference, Canada.  
**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)
- Conference Abstract* May 2015 SID 2015, 74th Annual Meeting of the Society for Investigative Dermatology, Atlanta, GA, USA.  
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](https://doi.org/10.1038/jid.2015.71)
- Research Poster* October 2014 ISCB-Latin America X-Meeting on Bioinformatics  
**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*. University of Münster, Germany.

### ONGOING BACHELOR THESIS

Duc Thong Truong (2024 - Forthcoming). *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 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.

### 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

- Workshop Organizer* Feb 2023 and Feb 2024 **Continual Causality – I and II Editions**  
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 Deutsches Zentrum für Luft- und Raumfahrt.
- Workshop Organizer* Dec 2021 **Causal Inference & Machine Learning: Why now?**  
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).
- Reviewer* 2018 - Present **Conference and Journal Reviewer**  
(2021 - Present) NeurIPS, AAAI, ICML UAI, CLeaR, JMLR, Neuro Causal and Symbolic AI (nCSI), WHY (2021), XXXVIII-th CNMAC (2018).

## INVITED TALKS

- Invited Talk* December 2024 **L3S Research Center, Leibniz University, and CAIMed**  
*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
- Invited Talk* October 2024 **Seminar at Université Grenoble Alpes**  
*Institut d'Informatique et Mathématiques Appliquées de Grenoble (IMAG), France*  
**Title:** Recent Advances in Causal Inference under Limited Domain Knowledge
- Invited Talk* June 2024 **TUM Seminar on Statistics and Data Science**  
*Department of Mathematics, Technical University of Munich (TUM), Germany*  
**Title:** Recent Advances in Causal Inference under Limited Domain Knowledge
- Invited Talk* May 2024 **68th Annual Meeting of RBras**  
*Brazilian Region of the International Biometrics Society (RBras), ESALQ/USP, in Piracicaba, SP, Brazil*  
**Title:** From Observations to Causality: Recent Advances and Ongoing Challenges
- Invited Talk* August 2023 **FGV EMap - School of Applied Mathematics**  
*School of Applied Mathematics of Getulio Vargas Foundation, Rio de Janeiro, Brazil.*  
**Title:** Recent Advances in Causal Inference under Limited Domain Knowledge
- Invited Talk* April 2023 **Workshop on Causal Representation Learning**  
*Max Planck Institute for Intelligent Systems, Tübingen, Germany*  
**Title:** Effect Identification in Cluster Causal Diagrams.
- Invited Talks* August 2022 **DAAD Postdoc-NeT-AI Tour – Germany**  
*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
- Invited Talk* August 2022 **Future Bioinformatics Workshop, Germany**  
**Title:** Causal AI: Towards Explainable, Generalizable, and Trustworthy Decision-Making.
- Invited Talk* May 2022 **Interinstitutional Graduate Program in Statistics**  
*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.
- Invited Talk* Dec 2021 **WHY-21 Workshop at NeurIPS-2021**  
*Causal Inference & Machine Learning: Why now? – Virtual Conference.*  
**Title:** Effect Identification in Cluster Causal Diagrams.
- Invited Talk* Nov 2021 **National Institute on Aging (NIA)**  
*Laboratory of Epidemiology & Population Science (LEPS) at National Institute on Aging (NIA)*  
**Title:** Causal Inference and the Data-Fusion Problem.
- Invited Talk* Nov 2021 **OECD workshop on AI and the productivity of science**  
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  
*Institute of Mathematics and Statistics (IME), Institute of Astronomy, Geophysics and Atmospheric Sciences (IAG), and School of Architecture and Urbanism (FAU) – 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

- |                 |   |
|-----------------|---|
| 5-day Course    | <p>July 2024      2nd European Summer School on Artificial Intelligence<br/> <i>Department of Informatics and Telecommunications National and Kapodistrian University of Athens, Athens, Greece – with Devendra Dhami, and Matej Zecevic.</i><br/> <b>Title:</b> <i>Machines Climbing Pearl’s Ladder of Causation</i></p> |
| 3-hour Tutorial | <p>July 2024      14th Lisbon Machine Learning School (LxMLS)<br/> <i>Instituto Superior Técnico, Lisbon, Portugal.</i><br/> <b>Title:</b> <i>Introduction to Causal Inference</i></p>  |
| 3-hour tutorial | <p>June 2024      6th Probabilistic AI School (ProbAI)<br/> <i>Frederiksberg Campus of University of Copenhagen, Copenhagen, Denmark</i><br/> <b>Title:</b> <i>Introduction to Causal Inference</i></p>   |
| 3-hour tutorial | <p>January 2024      Tropical Probabilistic AI School<br/> <i>Hosted with the EMap FGV Summer School on Data Science 2024, Rio de Janeiro, Brazil</i><br/> <b>Title:</b> <i>Introduction to Causal Inference</i></p>  |
| 5-day Course    | <p>July 2023      1st European Summer School on Artificial Intelligence<br/> <i>Faculty of Computer and Information Science, University of Ljubljana, Slovenia – with Devendra Dhami, and Matej Zecevic.</i><br/> <b>Title:</b> <i>Machines Climbing Pearl’s Ladder of Causation</i></p>                                  |
| 3-hour Tutorial | <p>July 2023      13rd Lisbon Machine Learning School (LxMLS)<br/> <i>Instituto Superior Técnico, Lisbon, Portugal.</i><br/> <b>Title:</b> <i>Causality and its Role in Reasoning, Explainability, and Generalizability</i></p>   |
| 3-hour tutorial | <p>June 2023      Nordic Probabilistic AI School<br/> <i>Norwegian University of Science and Technology (NTNU), Trondheim, Norway</i><br/> <b>Title:</b> <i>Causal Inference: Towards Explainable, Generalizable, and Trustworthy AI</i></p>  |
| Invited Lecture | <p>June 2023      Oregon State University<br/> <i>School of Electrical Engineering and Computer Science (EECS) at Oregon State University</i><br/> <b>Title:</b> <i>Causal Identification in Markov Equivalence Classes</i></p>   |
| 90-min Tutorial | <p>February 2023      Continual Causality - Bridge Program at AAAI<br/> <i>Walter E. Washington Convention Center, Washington DC, USA</i><br/> <b>Title:</b> <i>Putting the Causality in Continual Causality.</i></p>   |
| 3-hour Tutorial | <p>July 2022      12th Lisbon Machine Learning School (LxMLS)<br/> <i>Instituto Superior Técnico, Lisbon, Portugal – with Elias Bareinboim.</i><br/> <b>Title:</b> <i>Causal AI: Towards Explainable, Generalizable, and Trustworthy Decision-Making.</i></p>   |

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|---------------------|---------------|---|
| Invited Lecture     | Sep 2021      | University of Brasilia (UnB), Brasilia, Brazil.<br>Graduate Seminars Series - Statistics Department, University of Brasilia (UnB)<br><b>Title:</b> Causal Inference and Data-Fusion.  |
| 3-hour Tutorial     | July 2021     | 11st Lisbon Machine Learning School (LxMLS)<br>Virtual Conference – with Elias Bareinboim.<br><b>Title:</b> Causal Data Science: An Introduction to Causal Inference and Data Fusion.   |
| Invited Lecture     | Jun 2021      | Perspectives in Statistics - IME-USP<br>Statistics Department, University of Sao Paulo (IME - USP), Sao Paulo, SP, Brazil.<br><b>Title:</b> Causal Inference from Observational Studies.  |
| 3-hour Tutorial     | December 2020 | 76th Annual Deming Conference on Applied Statistics.<br>Virtual Conference – with Mohammad Adibuzzaman and Elias Bareinboim.<br><b>Title:</b> Causal Inference in the Health Sciences.  |
| 3.5-hour Tutorial   | November 2020 | American Medical Informatics Association (AMIA)<br>Virtual Conference – with Mohammad Adibuzzaman and Elias Bareinboim.<br><b>Title:</b> Causal Inference in the Health Sciences.   |
| Invited Lecture     | Oct 2020      | Biostatistics and Biometrics Seminar Series - UNESP<br>Sao Paulo State University - UNESP, Botucatu, SP, Brazil.<br><b>Title:</b> Causal Inference from Observational Studies.  |
| Invited Lecture     | Mar 2019      | Statistics Seminar Series – UFSCar & USP<br>Federal University of Sao Carlos and University of Sao Paulo, Sao Carlos, SP, Brazil.<br><b>Title:</b> Learning Genetic and Environmental Graphical Models from Gaussian Family Data.       |
| 9-hour Short Course | Jan 2017      | Graduate Summer School – UNESP<br>São Paulo State University - UNESP, Presidente Prudente, Brazil – with Julia M. P. Soler.<br><b>Title:</b> Dimensionality Reduction and Structure Learning with Applications to Genomics.             |
| 4-hour Short Course | May 2016      | 61st Annual Meeting of RBras - IBS<br>61st Annual Meeting of the Brazilian Region (RBras) International Biometric Society (IBS), Bahia, Brazil – with Julia M. P. Soler.<br><b>Title:</b> 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.<br>ENGLISH · Fluent.<br>GERMAN · Beginner.            |

December 5, 2024