

[HTML] **Comparing the effectiveness of Family Support for Health Action (FAM-ACT) with traditional community health worker-led interventions to improve adult diabetes ...**

DJ Deverts, M Heisler, EC Kieffer, GA Piatt, F Valbuena... - *Trials*, 2022

Diabetes self-management education and support (DSMES) programs have struggled to deliver sustainable, effective support for adults with diabetes (AWDs) to improve self-management behaviors, achieve glycemic goals, and reduce risk for ...

**CI-OCM: Counterfactual Inference towards Unbiased Outfit Compatibility Modeling**

L Jing, M Tian, X Chen, T Sun, W Guan, X Song - ... of the 1st Workshop on Multimedia ..., 2022

As a key task to support intelligent fashion shop construction, outfit compatibility modeling, which aims to estimate whether the given set of fashion items makes a compatible outfit, has attracted much research attention. Although previous efforts ...

**The past, present, and future of experimental methods in the social sciences**

TD Mize, B Manago - *Social Science Research*, 2022

In the midst of the current causal revolution, experimental methods are increasingly embraced across the social sciences. We first document the growth in the use of the experimental method and then overview the current state of the field along with ...

[PDF] **Domain Generalization--A Causal Perspective**

P Sheth, R Moraffah, KS Candan, A Raglin, H Liu - arXiv preprint arXiv:2209.15177, 2022

Machine learning models have gained widespread success, from healthcare to personalized recommendations. One of the preliminary assumptions of these models is the independent and identical distribution. Therefore, the train and test data are ...

[PDF] **Identifying Weight-Variant Latent Causal Models**

Y Liu, Z Zhang, D Gong, M Gong, B Huang, A Hengel... - arXiv preprint arXiv ..., 2022

The task of causal representation learning aims to uncover latent higher-level causal representations that affect lower-level observations. Identifying true latent causal representations from observed data, while allowing instantaneous causal relations ...

[PDF] **Ethnic Disparities in Sentencing: Warranted or Unwarranted?**

J Pina-Sánchez, S Geneletti, A Veiga, A Morales... - 2022

Large research efforts have been directed at the exploration of ethnic disparities in the criminal justice system, documenting harsher treatment of minority ethnic defendants, across offence types, criminal justice decisions, and jurisdictions ...

**CI-OCM: Counterfactual Inference towards Unbiased Outfit Compatibility Modeling**

L Jing, M Tian, X Chen, T Sun, W Guan, X Song - ... of the 1st Workshop on Multimedia ..., 2022

As a key task to support intelligent fashion shop construction, outfit compatibility modeling, which aims to estimate whether the given set of fashion items makes a compatible outfit, has attracted much research attention. Although previous efforts ...

[PDF] [Causal Deep Learning](#)

MAO Vasilescu

We derive a set of causal deep neural networks whose architectures are a consequence of tensor (multilinear) factor analysis. Forward causal questions are addressed with a neural network architecture composed of causal capsules and a ...

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J Ferguson, M O'Connell

Features of graphPAF demonstrated in this manuscript include inference for standard population attributable fraction and impact fractions, the display of these calculations using attributable fraction fan-plots and nomograms, computation and display of ...

[HTML] [Causal, Bayesian, & non-parametric modeling of the SARS-CoV-2 viral load distribution vs. patient's age](#)

M Guardiani, P Frank, A Kostić, G Edenhofer, J Roth... - PloS one, 2022

The viral load of patients infected with SARS-CoV-2 varies on logarithmic scales and possibly with age. Controversial claims have been made in the literature regarding whether the viral load distribution actually depends on the age of the patients. Such a ...

[PDF] [Testing Model Fit in Path Models with Dependent Errors Given Non-Normality, Non-Linearity and Hierarchical Data](#)

JC Douma, B Shipley - Structural Equation Modeling: A Multidisciplinary ..., 2022

We provide a generic method of testing path models that include dependent errors, nonlinear functional relationships and using nonnormal, hierarchically structured data. First, we provide a decomposition of the causal model into smaller ...

[PDF] [Student learning and teacher retention for graduates of Texas Noyce programs](#)

M Marder, C Horn, S Stephens, A Rhodes - Education Policy Analysis Archives, 2022

The shortage of secondary STEM teachers has led to periodic calls over the past four decades for federal intervention. For more than 15 years, the National Science Foundation Robert Noyce Teacher Scholarship Program has constituted the most ...

[PDF] [Causal Knowledge Transfer from Task Affinity](#)

A Aloui, J Dong, CP Le, V Tarokh - arXiv preprint arXiv:2210.00380, 2022

Recent developments in deep representation models through counterfactual balancing have led to a promising framework for estimating Individual Treatment Effects (ITEs) that are essential to causal inference in the Neyman-Rubin potential ...

[PDF] [Data-driven Automated Negative Control Estimation \(DANCE\): Search for, Validation of, and Causal Inference with Negative Controls](#)

E Kummerfeld, J Lim, X Shi - arXiv preprint arXiv:2210.00528, 2022

Negative control variables are increasingly used to adjust for unmeasured confounding bias in causal inference using observational data. They are typically identified by subject matter knowledge and there is currently a severe lack of data ...

[PDF] [\*\*Combinatorial and algebraic perspectives on the marginal independence structure of Bayesian networks\*\*](#)

D Deligeorgaki, A Markham, P Misra, L Solus - arXiv preprint arXiv:[2210.00822](#), 2022

We consider the problem of estimating the marginal independence structure of a Bayesian network from observational data in the form of an undirected graph called the unconditional dependence graph. We show that unconditional dependence ...

[PDF] [\*\*A brief introduction to supervised, unsupervised, and reinforcement learning\*\*](#)

EF Morales, HJ Escalante - ... and Classification Using Computational Learning and ..., 2022

Inducing models is a critical aspect of biosignal information processing. Models can be used to learn a mapping from a characterization of signals to categories associated with the problem at hand. Models can also be used to group biosignal ...

[PDF] [\*\*Exploiting Selection Bias on Underspecified Tasks in Large Language Models\*\*](#)

E McMillin - arXiv preprint arXiv:[2210.00131](#), 2022

In this paper we motivate the causal mechanisms behind sample selection induced collider bias (selection collider bias) that can cause Large Language Models (LLMs) to learn unconditional dependence between entities that are unconditionally ...

[\*\*First Nationalism Then Identity: On Bosnian Muslims and Their Bosniak Identity\*\*](#)

M Kriještorac - 2022

A radical cartographer, Philippe Rekacewicz, created a map in 2008 of the region of Sandžak which was occupied and divided by the new states of Serbia and Montenegro after the First Balkan War in 1912 when the Ottoman Empire lost most of ...

[PDF] [\*\*Power Analysis for Causal Discovery\*\*](#)

E Kummerfeld, L Williams, S Ma - 2022

Causal discovery algorithms have the potential to impact many fields of science. However, substantial foundational work on the statistical properties of causal discovery algorithms is still needed. This paper presents what is to our knowledge ...

[PDF] [\*\*Incarcerated Mothers and their Children's Caregivers: How their Relationship Impacts the Mother-Child Relationship\*\*](#)

JS Ford - 2022

Mass incarceration has impacted much of the population in the United States over the last several decades. One of the most significantly impacted groups is women. Over half of incarcerated women are mothers. Mothers are typically the primary ...

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R Mróz - 2022

In economics, and macroeconomics in particular, causal explanation and inference hold special importance since economists are expected to help guide policy, which requires understanding of causal relations. Causes and effects have also attracted ...

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Y Cao - 2022

This dissertation studies the political economy of development. I focus on understanding two major challenges to development: corruption and conflict. The three chapters explore how patronage systems lead to more corruption and ...

## **[PDF] Bayesian nonparametric mixtures of directed acyclic graph models**

F Castelletti, G Consonni - Padua Research Archive-Institutional Repository, 2022

Estimating dependence relations among variables is a pervasive issue in multivariate statistical analysis. In this context, graphical models provide a useful framework, which adopts a synthetic graph-based representation to encode ...

## **КАУЗАЛЬНА МОДЕЛЬ ПРОЦЕСУ ПОБУДОВИ ПОЯСНЕНЬ В ІНФОРМАЦІЙНІЙ СИСТЕМІ**

S Chalyi, V Leshchynskyi, I Leshchynska - Системи управління, навігації та зв'язку ..., 2022

Анотація Предметом вивчення в статті є процеси формування пояснень щодо прийнятих в інтелектуальній інформаційній системі рішень. Метою є розробка моделі процесу побудови деталізованих пояснень щодо прийнятого ...

## **[PDF] Diagrammi Causali per l'Inferenza Causale: Un'Introduzione**

N BERTIN

Abstract in italiano In ambito econometrico-statistico, per quantificare una relazione causa effetto è richiesto un dettagliato lavoro preliminare di conoscenza del contest in cui si manifesta il fenomeno studiato, al fine di fornire argomenti utili ad attribuire ...

## **Distributional causal effects: Beyond an “averagarian” view of intervention effects.**

W Wiedermann, B Zhang, W Reinke, KC Herman... - Psychological Methods, 2022

The usefulness of mean aggregates in the analysis of intervention effectiveness is matter of considerable debate in the psychological, educational, and social sciences In addition to studying “average treatment effects,” the evaluation of “distributional ...

## **Leveraging Directed Causal Discovery to Detect Latent Common Causes in Cause-Effect Pairs**

CM Gilligan-Lee, C Hart, J Richens, S Johri - IEEE Transactions on Neural Networks ..., 2022

The discovery of causal relationships is a fundamental problem in science and medicine. In recent years, many elegant approaches to discovering causal relationships between two variables from observational data have been proposed ...

## **[PDF] Conditional Feature Importance for Mixed Data**

K Blesch, DS Watson, MN Wright - arXiv preprint arXiv:2210.03047, 2022

Despite the popularity of feature importance measures in interpretable machine learning, the statistical adequacy of these methods is rarely discussed. From a statistical perspective, a major distinction is between analyzing a variable's ...

[HTML] [\*\*Is the Effect of Environmental Attitudes on Behavior Driven Solely by Unobserved Heterogeneity?\*\*](#)

HK Andersen, J Mayerl - KZfSS Kölner Zeitschrift für Soziologie und ..., 2022

A large body of research exists investigating the link between environmental attitudes and behavior. Many empirical studies have found modest positive effects, suggesting that attitudes toward the environment might indeed influence ...

[PDF] [\*\*On Explaining Confounding Bias\*\*](#)

B Youngmann, M Cafarella, Y Moskovitch, B Salimi - arXiv preprint arXiv:2210.02943, 2022

When analyzing large datasets, analysts are often interested in the explanations for surprising or unexpected results produced by their queries. In this work, we focus on aggregate SQL queries that expose correlations in the data. A major challenge that ...

[PDF] [\*\*Causal Inference for Chatting Handoff\*\*](#)

S Zhong, J Qin, Z Huang, D Li - arXiv preprint arXiv:2210.02862, 2022

Aiming to ensure chatbot quality by predicting chatbot failure and enabling human-agent collaboration, Machine-Human Chatting Handoff (MHCH) has attracted lots of attention from both industry and academia in recent years. However, most existing ...

[PDF] [\*\*Regression discontinuity design with right-censored survival data\*\*](#)

EA Stoltenberg - arXiv preprint arXiv:2210.02548, 2022

In this paper the regression discontinuity design is adapted to the survival analysis setting with right-censored data, studied in an intensity based counting process framework. In particular, a local polynomial regression version of the Aalen additive ...

[PDF] [\*\*Changes over Time in Association Patterns between Estimated COVID-19 Case Fatality Rates and Demographic, Socioeconomic and Health Factors in the US States ...\*\*](#)

M Joshi, Y Di, S Bhattacharyya, S Chatterjee - COVID, 2022

Abstract The United States struggled exceptionally during the COVID-19 pandemic. For researchers and policymakers, it is of great interest to understand the risk factors associated with COVID-19 when examining data aggregated at a regional level. We ...

[\*\*Money and Medicine: The Evolution of National Health Expenditures\*\*](#)

TE Getzen - 2022

A unique historical review that traces health spending from ancient times to the present and forecasts 21st century trends. There are many histories of medicine, yet none that assess the dynamics of expenditures over decades and centuries ...

[\*\*Modifying Manifold Learning Algorithms to Collect and Exploit Data for Chemical Engineering Modeling\*\*](#)

DW Sroczynski - 2022

Large data sets from observations of complex dynamical systems have become increasingly prevalent in science and engineering. The high-dimensionality of these data sets complicates (or even renders impractical) human understanding as well as ...

[PDF] [Aspects of Rational Argumentation](#)

B Richter - 2022

Rational argumentation is shaped both by logical norms and pragmatic principles. Normative accounts of rationality intend to understand rational argumentation through the lens of formal logic and propositional calculus. Descriptive accounts of ...