

PIPGES · WEBINARS

MAY · 27
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(GMT-03:00) Brasilia Standard Time - Sao Paulo

The video call link will be available at:

<https://tiny.one/ribeiro-a>

Interinstitutional Graduate Program in Statistics (PIPGES) of Federal University of São Carlos with University of São Paulo promotes seminars groups (temporarily webinars, due to pandemic issues) of researches involving Probability, Statistics, Machine Learning etc. Our interest, among other things, is to stimulate the sharing of knowledge, as well as the connection between members of the program and researchers in other institutions.

Organizer

Michel H. Montoril, Department of Statistics,
Federal University of São Carlos.

UFSCar

CAUSAL EFFECT IDENTIFICATION IN PARTIALLY UNDERSTOOD DOMAINS

One pervasive task found throughout the empirical sciences is to determine the effect of interventions from observational (non-experimental) data. It is well-understood that assumptions are necessary to perform causal inferences, which are commonly articulated through causal diagrams (Pearl, 2000). Despite the power of this approach, there are settings where the knowledge necessary to fully specify a causal diagram may not be available, particularly in complex, high-dimensional domains. In this talk, I will present two novel causal effect identification approaches that relax the stringent requirement of fully specifying a causal diagram. The first is a new graphical modeling tool called cluster DAGs (for short, C-DAGs) that allows for the specification of relationships among clusters of variables, while the relationships between the variables within a cluster are left unspecified. The second includes a complete calculus and algorithm for effect identification from a Partial Ancestral Graph (PAG), which represents a Markov equivalence class of causal diagrams, learnable from observational data. These approaches are expected to help researchers and data scientists to identify novel effects in real-world domains, where knowledge is largely unavailable and coarse.

SPEAKER

Adèle H. Ribeiro

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BIO

Dr. Adèle Helena Ribeiro is a highlighted DAAD Postdoc-NeT-AI Fellowship recipient and Postdoctoral Research Scientist in the Causal Artificial Intelligence (Causal AI) Laboratory. Her research lies at the intersection of Computer Science, Statistics, and Artificial Intelligence in Healthcare. Her efforts are focused on advancing the theory of causal inference and learning for discovering, generalizing, and personalizing cause-effect relationships from multiple observational and experimental data collections. She received her Ph.D., M.S., and B.S. degrees all from the Institute of Mathematics and Statistics of the University of Sao Paulo (USP), Brazil. Academic webpage: <https://adele.github.io/>.

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