Causality Course Overview

Charles K. Assaad, Emilie Devijver, Eric Gaussier

Course overview

- Session 1 Wednesday 7 September course (E. Gaussier)

 Introduction to causal graphical models
- Session 2 Wednesday 14 September course + lab (E. Devijver)

 Structural equation models, structural causal models

 Lab on graphs
- Session 3 Wednesday 21 September course (C. Assaad)

 Causal discovery: constraint-based methods
- Session 4 Wednesday 28 September course (C. Assaad, E. Gaussier)

 Causal discovery: noise-based, score-based and other methods
- Session 5 Wednesday 5 October lab + course (C. Assaad)

 Lab on PC algorithm (0.25)

 Backdoor and frontdoor criteria

Course overview

Session 6 Wednesday 12 October - course (E. Devijver)

Do-calculus and estimation

Session 7 Wednesday 19 October - course (E. Devijver)

Counterfactual reasoning

Session 8 Wednesday 26 October - lab + course (C. Assaad)

Lab on Simpson's paradox (0.25)

Application

Session 9 Wednesday 9 November - final exam

Presentation of articles (0.5)

Elements (labs + final exam) in orange are graded (the coefficient is given in parentheses)