# Alessandro Mascaro

#### POSTDOCTORAL RESEARCHER

Departament d'Economia i Empresa, Universitat Pompeu Fabra

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I am a postdoctoral researcher at the Departament d'Economia i Impresa of Universitat Pompeu Fabra. Before, I was a PhD student in Statistics at the University of Milano-Bicocca, advised by Federico Castelletti and Guido Consonni. My philosophical and research interests lie primarily in the area of causation and causal inference. In particular, I work on developing Bayesian methodologies for causal inference and causal structure learning from mixtures of observational and experimental data

# **Education**

### **University of Milano-Bicocca**

Milan, Italy

PhD in Statistics

2019-2023

- · Thesis: Bayesian approaches to causal inference and discovery from observational and interventional data
- Advisors: Federico Castelletti, Guido Consonni

#### Università Cattolica del Sacro Cuore

Milan, Italy

MSc in Actuarial Science

2016-2019

- Graduated with distinction
- · Thesis: The uncertainty on the dependence structure between marginal distributions: theory and applications to the insurance domain
- · Advisor: prof. Gian Paolo Clemente

#### Università Cattolica del Sacro Cuore

Milan, Italy 2013-2016

**BSc IN ECONOMICS** 

- Graduated with distinction
  Thesis: Elite universities and mass universities: the role of signals in educational choices
- Advisor: prof. Luca Vittorio Angelo Colombo

## **Publications**

F Castelletti, A Mascaro

arXiv preprint

BCDAG: An R package for Bayesian structure and Causal learning of Gaussian DAGs

2022

F Castelletti, A Mascaro

A Mascaro, F Castelletti

Statistical Methods & Applications

STRUCTURAL LEARNING AND ESTIMATION OF JOINT CAUSAL EFFECTS AMONG NETWORK-DEPENDENT VARIABLES

arXiv preprint

BAYESIAN CAUSAL DISCOVERY FROM UNKNOWN GENERAL INTERVENTIONS

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# **Presentations**

### INVITED PRESENTATIONS

CMStatistics

Bayesian Causal discovery from linknown general interventions

Berlin

2023

### CONTRIBUTED PRESENTATIONS

BAYESIAN CAUSAL DISCOVERY FROM UNKNOWN GENERAL INTERVENTIONS

Lisbon

ISBA World meeting

Online

A BAYESIAN APPROACH TO CAUSAL DISCOVERY FROM SOFT INTERVENTIONS

2021

### POSTER PRESENTATIONS

**ISBA World Meeting** 

Workshop on Approximation Methods in Bayesian Analysis

THE I-MAP PARAMETERIZATION FOR BAYESIAN CAUSAL EFFECT ESTIMATION IN GAUSSIAN DAG-MODELS

Florence, Italy

**International Conference on Statistics and Data Science** 

2022

Marseille, France

BAYESIAN LEARNING OF CAUSAL STRUCTURES FROM UNKNOWN GENERAL INTERVENTIONS

Montreal, Canada

Bayesian learning of causal structures from unknown general interventions

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**ISI World Statistics Congress, ISBA World Meeting** 

Online

A BAYESIAN APPROACH TO CAUSAL DISCOVERY FROM SOFT INTERVENTIONS

2021

# **Teaching activities**.

### Bayesian modelling, MSc in Data Analytics for Business

Università Cattolica del Sacro

Cuore, Milan

2021, 2022, 2023

TEACHING ASSISTANT

· 20h of lectures

• Theoretical exercises

• Statistical programming using R and JAGS

Università Cattolica del Sacro

Cuore, Milan

2021, 2022, 2023

Statistical modelling, MSc in Economics

TEACHING ASSISTANT

- 10h of lectures
- · Theoretical exercises
- Statistical programming using R

## Università Cattolica del Sacro

Cuore, Milan

2021 203

# MSc in Data Analytics for Management

Tutor

- · 20h of assistance to graduate students
- Theoretical exercises on statistical inference

# Other skills

### PROGRAMMING

- R (Advanced)
- JAGS (Good)
- C++, Python, SQL, Stan (Basic)

### Tools

- Markdown (Advanced)
- git, LaTeX (Good)

### LANGUAGES

- Italian (native)
- · English (fluent)
- Spanish (Basic)

# Other info

### MEMBERSHIPS

- Institute of Mathematical Statistics (IMS)
- International Society for Bayesian Analysis (ISBA)
- · j-ISBA

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