



UNIVERSITÀ DI PAVIA  
Department of Brain  
and Behavioral Sciences

# Probabilistic causal graph representations of medical knowledge for clinical research and decision-making

Online course via Zoom platform  
14 meetings between September and December 2024, for a  
total of 51 hours.

**Lecturers:**  
**Prof. Carlo Berzuini**, University of Manchester  
**Dr. Hui Guo**, University of Manchester  
**Dr. Hiren Patel**, University of Manchester  
**Dr. Leonardo Egidi**, University of Trieste  
**Dr. Davide Luciani**, Mario Negri Research Institute



## Scientific Committee and Organizers:

Carlo Berzuini, Luisa Bernardinelli, Teresa Fazia, Andrea Nova.

## Registration Fees:

Students	€ 500
Academics	€ 800
Non-Academics	€ 1000

For the first 4 modules only, it is possible to register for individual modules at a cost of 250 € /module.

## Registration link:

[https://docs.google.com/forms/d/1Xk1gp\\_M79SOPPLVziFRUMau\\_Ys0sfZB30MwDReucL80/edit](https://docs.google.com/forms/d/1Xk1gp_M79SOPPLVziFRUMau_Ys0sfZB30MwDReucL80/edit)

**Deadline for registration:**  
**31 August 2024**

## Secretary:

*Dr. Gianfranca Corbellini*

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Dept. of Brain and Behavioral Sciences

## Program:

### Module 1: 16-17-18 September 2024

- The Challenges Of Causal Analysis: A Statistical Viewpoint
- Causality In Medicine
- Knowledge Representation And Inference Via Causal Graphs: The Theory

### Module 2: 14-15-16 October 2024

Introduction To Bayesian Inference

### Module 3: 4-5-6 November 2024

Probabilistic Languages For Modelling And Computation In Bayesian Inference

### Module 4: 25-26-27 November 2024

Focus On Diagnosis, With An Application In Emergency Medicine

### Module 5: 11-12 December 2024

- Applications In The Study Of Unsolved Therapeutic Decision Problems And Clinical Variability
- Focus On Therapy, With An Application In Neurosurgery