

## SEMINAR SERIES IN BIOSTATISTICS



**May 27, 2021**

**14:30-15:30**

**University of Milano-Bicocca, Building U6 - Room 7  
&**

**Zoom: (MEETING ID: 651 0002 8770) (PWD: 490973)**

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### **Path Analysis and Mediation: the case of binary random variables**

In recent years, many methods have been developed to disentangle the total effect of a covariate  $X$  on an outcome variable  $Y$  into a direct effect and a number of indirect effects, each of them attributable to different mediators along the pathway from  $X$  to  $Y$ . The decomposition has been developed both in the associational context and in the causal/counterfactual framework. These methods, that for the linear case originated from the classical path analysis, are now known as “mediation analysis”. After reviewing some recent parametric results on path analysis for binary random variables, their link with the causal/counterfactual interpretation will be discussed. A focus on the situation with two mediators will also be presented.