## Announcement

CELLS RESEARCH SEMINAR SUMMER SEMESTER 2025



## Edoardo Peruzzi, Leibniz Universität Hannover

Monday, 28 April 2025, 10.15-11.45am s.t.

Edoardo Peruzzi is a posdoctoral researcher in the ERC-funded project "Model Transfer" at the LUH. He studied philosophy and economics at the Scuola Normale Speriore, the University of Pisa and the University of Siena.



## The Application of Economic Models in the Courtroom: A Failed Promise?

Scientific models are frequently used as sources of evidence in legal proceedings. A prominent example is the use of economic models by expert witnesses in competition cases, that is, legal disputes involving alleged violations of antitrust laws, such as monopolistic practices, anti-competitive agreements, and abuse of market dominance. In these cases, economic experts working for the parties in litigation combine theoretical models with econometric techniques to produce quantitative insights about specific markets. Judges, in turn, assess the strength and reliability of this model-based evidence when reaching their verdict. Despite their widespread use, economic models often fail to significantly influence judicial decisions, thereby undermining the rationale for their introduction into courts. The limited relevance of model-based evidence becomes apparent through a survey of U.S. case law and the ongoing debate among antitrust scholars, which highlights significant skepticism towards the use of economic models in the courts. In this paper, I argue that the dismissal of modelbased evidence carries substantial consequences. When such evidence is disregarded, weaker and less reliable forms of evidence often take its place, potentially diminishing the quality of judicial decisions. Thus, I contend that by discarding model-based evidence, courts may undermine the quality of their decisions, which instead become based on less reliable evidence. To uncover the reasons behind this phenomenon, I will explore the methodological challenges of using economic models in court in two ways. First, I argue that, despite prima facie similarities, the judicial assessment of model-based evidence differs from other instances of model usage studied in the philosophy of science. Second, I suggest that the challenges faced by economic modeling in the courtroom arise from a combination of institutional factors and the epistemological characteristics of economic models. Specifically, I argue that courts may discard model-based evidence because it has a large "attack surface," making it particularly vulnerable to challenges in an adversarial setting. Ironically, for this reason, other forms of evidence-while less reliable-may gain prominence in judicial decisions because they are simpler and have a smaller attack surface.

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