

Wednesday, May 17th, 202310:00 – 12:00iLead-PON RESEARCH SEMINAR



EMPOWERING CHANGEMAKERS FOR A BETTER SOCIETY

## 'INSTRUMENTAL VARIABLES ESTIMATION: ASSUMPTIONS, PITFALLS, AND GUIDELINES'

## BY NICOLAS BASTARDOZ - HEC LAUSANNE



## ABSTRACT

Researchers striving to ensure rigor in their scientific findings face a common pitfall: Endogeneity. To tackle this problem, scholars have increasingly adopted instrumental variables estimation (IVE). Although there are many published works showing how IVE should be used, many applied researchers still have trouble understanding how to use the method correctly. In this workship, I provide a methodological overview of IVE by discussing the underlying conditions valid instruments must satisfy as well as common mistakes made in using IVE. Using simulated data, I further demonstrate the sensitivity of IVE to violations of its conditions. We then take stock of the literature in a social science discipline (i.e., leadership research) and provide insights regarding trends and shortcomings in the application of IVE. Based on this review, my coauthors and I categorized the different types of instruments used and discuss the potential appropriateness of each type. I will conclude the presentation by providing non–technical guidelines targeted at the study design, analysis, and reporting.

There will be a Q&A following the presentation







