

## **WWZ Reseach Seminar**

**Tuesday, November 17, 2020, 12:30pm, Zoom only**

**Prof. [Lucas Leemann](#), University of Zurich**

**"Survey Data and Multilevel Modeling - Advances and New Tools"**

(joint with Philipp Broniecki and Reto Wüest)

### **Abstract**

Traditional design-based survey inference is increasingly costly and impractical. Model-based survey inference has gained prominence in the last twenty years. Specifically, Multilevel regression with post-stratification (MrP) has become a standard for small area estimation. In this talk I will briefly sketch out what MrP can do and identify two weaknesses of the classic approach. First, the census-data constraint for the individual-level information. Second, the lack of disciplined feature selection and functional form. But both of these problems can be addressed. I will present MrsP (MrP's better half) that is more flexible for individual-level information and then focus on autoMrP which leverages machine learning to produce an improved response model.