# Newsletter 28/2023

ALFRED-WEBER-INSTITUT



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## **Upcoming Seminars**

Monday, 27.11.2023	Departmental Seminar I
13.30-14.30 AWI room 00.010	Jacopo Magnani, Norwegian University of Science and Technology
	"Why do people violate no-trade theorems? A diagnostic test"
	(Host: Sebastian Ebert)
Wednesday, 29.11.2023	Departmental Seminar II
12.15-13.15	Victoria Stodden, University of Southern California
AWI room 00.010	"Automating Assessment of Machine Learning Research: Revisiting Arrow's Impossibility Theorem"
	(Host: Timo Dimitriadis)

## Abstracts

#### **Departmental Seminar I**

Jacopo Magnani

"Why do people violate no-trade theorems? A diagnostic test"\*

Evidence from both the lab and field suggests that people frequently trade on the basis of private information in violation of no-trade theorems. Why? We report an experiment designed to distinguish between three prominent explanations: cursedness, relative overconfidence and signal attachment (i.e., overweighting of one's own signal). Our experimental design takes a diagnostic approach, stripping these potential explanations away one-by-one over a series of treatments. In some of our treatments the accuracy of each subject's private signal depends on the subject's skill, generating scope for relative overconfidence. In further treatments we eliminate

relative overconfidence as a source for trade by instead implementing signals with an exogenous common accuracy. Likewise, in some of our treatments, subjects must extract information from their counterparts' trading strategies, generating scope for cursed beliefs, while in others we ease this possibility by making signals public information. The public information treatment also allows us to evaluate whether subjects react asymmetrically to their own signal and the signal of their counterpart. Treatment level analysis suggests behavior is consistent with cursedness, relative overconfidence and signal attachment. These forces operate independently of subject confusion and noise. We use our treatment design and elicited beliefs to identify the parameters of a structural model, which allows us to quantify the effect of each channel and their interactions. Structural estimates imply that cursedness plays a major role: it has the largest effect on motivating trade, and it also amplifies the effect of relative overconfidence.

\*with Ryan Oprea

#### **Departmental Seminar II**

Victoria Stodden, University of Southern California

"Automating Assessment of Machine Learning Research: Revisiting Arrow's Impossibility Theorem"

Research findings are increasingly shared as computational pipelines, replete with information allowing re-executability and verification of results. I present a value proposition for model checking in machine learning, and argue for an automated approach. I present new empirical results from our open source automated machine learning model checking tool, Reproscreener, which checks a set of benchmark criteria at the point of publication with the goal of providing guarantees on correctness, scalability, and transparency. A 2019 National Academies of Science, Engineering, and Medicine report defined reproducibility as "obtaining consistent computational results using the same input data, computational steps, methods, code, and conditions of analysis." As model checking efforts yield results, we show that the meaning of consistency in this definition gives rise to a novel application of Arrow's Impossibility Theorem (1951, Nobel Prize in Economics 1972) in automated model checking.

### **New Publications**

Rüdiger Bachmann, Almut Balleer, Zeno Enders, Niklas Garnadt und Heiko Stüber: "Makrodaten: Die amtliche Statistik stärken" in Wirtschaftsdienst 103 (11), 741-745. (find <u>here</u>)

Editorial deadline for issue 29/2023 of the newsletter: Wednesday, November 29, 2023, 12 p.m. <u>newsletter@awi.uni-heidelberg.de</u>