



## Upcoming Seminars

### Monday, 11.12.2023

### Departmental Seminar

13.30-14.30

AWI room 00.010

Philipp Ager, University of Mannheim

"Gender-biased technological change: Milking machines and the exodus of women from farming"

(Host: Ferdinand Rauch)

### Wednesday, 13.12.2023

### Internal Seminar

12.15-13.15

AWI room 00.010

Julian Matthes and David Piazzolo

"The Role of Heterogeneity in Coopetition in Professional Road Cycling"

## Abstracts

### Departmental Seminar

Philip Ager

"Gender-biased technological change: Milking machines and the exodus of women from farming"

This paper studies the link between gender-biased technological change in the agricultural sector and structural transformation in Norway. After WWII, Norwegian farms began widely adopting milking machines to replace the hand milking of cows, a task typically performed by women. Combining population-wide panel data from the Norwegian registry with municipality-level data from the Census of Agriculture, we show that the adoption of milking machines triggered a process of structural transformation by displacing young rural women from their traditional jobs on farms in dairy-intensive municipalities. The displaced women moved to urban areas where they acquired a higher level of education and found better-paid employment. These

findings are consistent with the predictions of a Roy model of comparative advantage, extended to account for task automation and the gender division of labor in the agricultural sector. We also quantify significant inter-generational effects of this gender-biased technology adoption. Our results imply that the mechanization of farming has broken deeply rooted gender norms, transformed women's work, and improved their long-term educational and earning opportunities, relative to men.

## **Internal Seminar**

Julian Matthes and David Piazzolo

"The Role of Heterogeneity in Cooperation in Professional Road Cycling"

Road cycling races, although won by individual riders, are a competition of teams. Riding behind other riders significantly reduces the effort required to hold a given speed. These races thus naturally feature the formation of groups of riders on the road. We propose a model capturing the dynamics of the simultaneous competition between and cooperation within such groups of riders with team affiliations. This model suggests that heterogeneity in rider strength or team strength within a group is favorable for between-group competition. If only the strongest rider of each team competes for the win, adding teammates to this rider's group is sometimes undesirable for the team, but adding teammates to competing groups is always helpful. We confirm our theoretical predictions with results data from more than 40 seasons of professional road cycling races and indicate further empirical avenues we aim to take.

## **Talks and Research Visits**

Julius Schoelkopf presented the paper "Long-term volatility shapes the stock market's sensitivity to news" (joint with Christian Conrad and Nikoleta Tushteva) at the HKMetrics Workshop on Economic and Financial Forecasting at the Karlsruhe Institute for Technology on December, 5.

## **New Publications**

Malte Faber, Reiner Manstetten, Marco Rudolf, Marc Frick, Mi-Yong Becker, "Nachhaltiges Handeln in Wirtschaft und Gesellschaft. Orientierung für den Wandel" was published as an E-book and as a print version by Springer, November 2023. ([SpringerLink](#))

Editorial deadline for issue 31/2023 of the newsletter:  
Wednesday, December 13, 2023, 12 p.m.  
[newsletter@awi.uni-heidelberg.de](mailto:newsletter@awi.uni-heidelberg.de)