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Academic Positions

Assistant Professor, Copenhagen Business School, Denmark

2021-

Short-term Visiting Positions

Visiting Researcher, Duke University, US	Jan-May 2024
Visiting Researcher, Duke University, US	Jan-May 2023

Education

Ph.D., Economics, University of Pittsburgh, US	2021
M.A., Economics, University of Pittsburgh, US	2020
M.S., Statistics, Humboldt University of Berlin, Germany	2015
B.A., Quantitative Methods, Warsaw School of Economics, Poland	2012

Research Interests

Applied Microeconomics

Published Research

Testing Models of Strategic Uncertainty: Equilibrium Selection in Repeated Games

(with Emanuel Vespa, Taylor Weidman, and Alistair J. Wilson) revise & resubmit at **Journal of the European Economic Association**

In repeated games, where both collusive and noncollusive outcomes can be supported as equilibria, it is crucial to understand the likelihood of selection for each type of equilibrium. Controlled experiments have empirically validated a selection criterion for the two-player repeated prisoner's dilemma: the basin of attraction for always defect. This prediction device uses the game primitives to measure the set of beliefs for which an agent would prefer to unconditionally defect rather than attempt conditional cooperation. This belief measure reflects strategic uncertainty over others' actions, where the prediction is for noncooperative outcomes when the basin measure is full, and cooperative outcomes when empty. We expand this selection notion to multi-player social dilemmas and experimentally test the predictions, manipulating both the total number of players and the payoff tensions. Our results affirm the model as a tool for predicting long-term cooperation, while also speaking to some limitations when dealing with first-time encounters.

Goals, Constraints, and Transparently Fair Assignments: A Field Study of Randomization Design in the UEFA Champions League

(with Alistair J. Wilson) Management Science 2023, 69(9), p. 3473-349.

Abstract. We analyze the design of a randomization procedure in a field setting with high stakes and substantial public interest: matching sports teams in the Union of European Football Association Champions League. While striving for fairness in the chosen lottery— giving teams similar distributions over potential partners—the designers seek to balance two conflicting forces: (i) imposing a series of combinatorially complex constraints on the feasible matches; and (ii) designing an

easy-to-understand and credible randomization. We document the tournament's solution, which focuses on sequences of uniform draws over each element in the final match, assisted by a computer to form the support for each draw. We first show that the constraints' effects within this procedure are substantial, with shifts in expected prizes of up to a million euro and large distortions in match likelihoods of otherwise comparable team pairs. However, examining all possible counterfactual lotteries over the feasible assignments, we show that the generated inequalities are, for the most part, unavoidable and that the tournament design is close to a constrained-best. In two extensions, we outline how substantially fairer randomizations are possible when the constraints are weakened, and how the developed procedure can be adopted to more-general settings.

Balanced Growth Approach to Tracking Recessions

(with Jean-François Richard) Econometrics 2020, 8(14).

Abstract. In this paper, we propose a hybrid version of Dynamic Stochastic General Equilibrium models with an emphasis on parameter invariance and tracking performance at times of rapid changes (recessions). We interpret hypothetical balanced growth ratios as moving targets for economic agents that rely upon an Error Correction Mechanism to adjust to changes in target ratios driven by an underlying state Vector AutoRegressive process. Our proposal is illustrated by an application to a pilot Real Business Cycle model for the US economy from 1948 to 2019. An extensive recursive validation exercise over the last 35 years, covering 3 recessions, is used to highlight its parameters invariance, tracking and 1- to 3-step ahead forecasting performance, outperforming those of an unconstrained benchmark Vector AutoRegressive model.

Working Papers

Lab to Algorithm: Predicting Als with Humans, and Vice Versa

(with Emanuel Vespa and Alistair J. Wilson)

A now mature literature on repeated prisoner's dilemma has outlined a number of regularities in how human subjects behave. In this literature a core task is to predict when the participants will collude on the jointly cooperative action, and when they will coordinate on the myopic solution: joint defection. Orthogonal to this, a new literature in industrial organization has begun to look at when Artificial Intelligence (AI) pricing agents collude in repeated settings. In this paper we begin to explore the extent to which the regularities that show-up in human subject behavior also manifest in the behavior of pricing agents. While there are similarities, that we document, there are also points of divergence. Moving forwards, the aim is to connect both literatures: Theoretical rules developed for human subjects can be predictive for AI agents, and thereby a useful tool for theoretic exercises in predicting AI in counterfactual settings. Conversely, AI agents can be used to develop insightful experiments to further refine and test our understanding of human behavior through experiments. As such, the tasks of predicting and understanding both human and AI behavior can be symbiotic.

Scoring from Difficult Angles

(with Battista Severgnini)

The allocation of talent is a crucial factor in determining the efficiency, inequalities, and growth trajectories of economies. While theoretical models consistently suggest that one of the main drivers of self-selection into different job market positions is opportunity costs, extensively testing this hypothesis using data proves to be extremely challenging. This paper empirically tests whether the initial conditions at birth can explain self-selection into high-risk (and thus remunerative) tasks. We collect a rich dataset on football players of English nationality and link this information with a set of macro and micro measures of economic performance. Our econometric analysis suggests a negative and significant relationship between the economic condition of the birthplace of players and their future economic performance. Furthermore, these results remain consistent even when changes in opportunity costs are driven by a quasi-experiment based on sudden and significant changes in regional funding from the European Union.

Screen vs Scene: Impact of News and TV on Belief Formation (with Natalia Khorunzhina)

This study examines the influence of news and television on belief formation. We analyze public beliefs about crime using data from an online survey of a nationally representative US sample, comparing the results with both current and historical news, and content from popular media. We focus on the influence of streaming movies and TV shows in the US to see how media shapes opinions. By explicitly modeling belief updating we further enhance our understanding of these processes. Our findings suggest that popular culture, including both fictional and non-fictional content, significantly influences people's views. This research highlights the significant effect media representations of issues like terrorism, COVID-19, global warming, and international

Works in Progress

Community-Wide Responses to Unexpected and Prolonged Shocks in Safety and Public Health (with Natalia Khorunzhina)

Awards, Honors, and Fellowships

Awarded Excellence in Teaching Award, Copenhagen Business School, Denmark	2023
Invited to the Lindau Nobel Laureate Meeting on Economic Sciences, Lindau, Germany	2022
Awarded Dissertation Fellowship, Federal Reserve Board, US	2019
Invited to the Princeton Initiative, Princeton University, US	2017
Awarded Summer Arts and Science Fellowship, University of Pittsburgh, US	2017
Awarded Arts and Science Graduate Fellowship, University of Pittsburgh, US	2017

Professional Activities

Invited Seminars

2024: University of Pittsburgh, US; Duke University, US; Northeastern University, US; Lehigh University, US

2021: University of Padova, Italy (online); Copenhagen Business School, Denmark (online); University of Alberta, Canada (online)

Conference Presentations

2020: International Network for Economic Research Conference, Université Sorbonne Paris Nord, France (online); Delhi Winter School, Delhi School of Economics and the Econometric Society, India (online); Applied Young Economists Webinar, Monash University, Australia (online); Eurasia Business and Economics Society, Madrid, Spain (online). 2019: Delhi Winter School, Delhi School of Economics and the Econometric Society, India; Economics Graduate Students Conference, Washington University in St. Louis, US; Conference on Economic Design, Budapest, Hungry; Queen Mary PhD Workshop, Queen Mary University of London, UK; GW Student Research Conference in Economics, George Washington University, US; H2D2 Research Day, University of Michigan, US; Pitt Day in Harrisburg, Pennsylvania State Capitol, US; Kenneth P. Dietrich School of Arts and Sciences Grad Expo, University of Pittsburgh, US; Eastern Economic Association Annual Meeting, New York City, US. 2018: Conference on Big Data Econometrics with Applications, Bank of Italy, Italy; Midwest Macro Meeting, Vanderbilt University, US; International Academic Conference on Economics of Football, New Economic School, Russia; GW Student Research Conference in Economics, George Washington University, US; Conference on Growth and Business Cycle in Theory and Practice, University of Manchester, UK; Kenneth P. Dietrich School of Arts and Sciences Grad Expo, University of Pittsburgh, US

Scientific Activities

Organizer of microeconomics workshop on "Advances in Collective and Individual Decision-Making and Information Economics" with Eric Maskin (Harvard University), Copenhagen Business School, Denmark (Apr 24–25, 2023)

Departmental Activities

Organizer of weekly Coffee O'clock meetings with seminar speakers and PhD students, Copenhagen Business School, Denmark (2023–), co-funded by the CBS PhD School. Co-organizer of the Women in Economics Group, jointly with Pengpeng Xiao, Duke University, US (2024)

Refereeing

Management Science, Journal of Sports Economics, Central European Journal of Operations Research, Journal of Quantitative Analysis in Sports

Media Appearances

"The War in the Middle East Can Create Problems for the World Economy," Politiken (Nov 3, 2023)

Other Relevant Positions

Research Assistant to Jean-François Richard, University of Pittsburgh, US	2016 – 2020
Research Assistant to David Huffman, University of Pittsburgh, US	2017
Research Assistant to Martin Gersch, Free University of Berlin, Germany	2014
Research Intern at the Ministry of Finance, Poland	2012

Teaching Appointments

Master's

Applied Econometrics, Copenhagen Business School, Denmark	2021-
Time Series for Economics, Business, and Finance, Copenhagen Business School, Denmark	2021-

Bachelor's

Theory and Mechanics Behind Econometrics, Copenhagen Business School, Denmark	2022-2023
Economic Data Analysis, University of Pittsburgh, US	2019
Applied Econometrics, University of Pittsburgh, US	2018

Student Supervision

Master Thesis, Copenhagen Business School, Denmark

2024: Felix Padilla Engstrøm; Weikang Ke & Yusuf Muhammed Dyrby; Ulrich Peter Christiansen. **2023**: Mattias Valdemar Högardh; Frede Lindgren & Eskil Volberg; Xaver Mittemayer; Duncan Aleni; Camilla Bergami. **2022**: Giovanni Lumicisi; Caroline Lindegaard & Sina Rust; Jiaman Song & Jiaze Gao

Business Project, Copenhagen Business School, Denmark

2023: Alexander Jørgensen, Phillip Sø Kristensen, Jacob Pedersen, and Gustav Beier-Dahl; Mattias Gregersen, Kasper Aaskov Jørgensen, Jonas Theodor Klussmann, and Kasper Aaskov Jørgensen. 2022: Frede Lindgren Jørgensen, Julie Rieland Hansen, Eskil Volberg, and Olivia Berrehouc-Kristensen; Max Christian Gerfort, Daniyal Mustafa Chaudhry, Mads Dam Jespersen, and Marco Sebastian Overby Simmini

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