

## Current Position

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2021– **POSTDOCTORAL RESEARCHER**  
Dept. of Economics, Uppsala University

## Education

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2015–2021 **DOCTOR OF PHILOSOPHY IN ECONOMICS**  
Stockholm School of Economics  
*Primary supervisor (from 2021-01-01):* Assoc. Prof. Mark Voorneveld  
*Primary supervisor (until 2020-12-31):* Prof. Jörgen Weibull  
*Secondary supervisor:* Assoc. Prof. Erik Mohlin

### References

**Prof. Jörgen Weibull**

Dept. of Economics, SSE

[jorgen.weibull@hhs.se](mailto:jorgen.weibull@hhs.se)

**Assoc. Prof. Erik Mohlin**

Dept. of Economics, Lund University

[erik.mohlin@nek.lu.se](mailto:erik.mohlin@nek.lu.se)

**Prof. Drew Fudenberg**

Dept. of Economics, MIT

[drewf@mit.edu](mailto:drewf@mit.edu)

**Assoc. Prof. Mark Voorneveld**

Dept. of Economics, SSE

[mark.voorneveld@hhs.se](mailto:mark.voorneveld@hhs.se)

2014–2015 **M.SC. IN ECONOMICS**  
Stockholm School of Economics  
*Unfinished due to admittance to the PhD program*

2012–2014 **M.SC. IN MATHEMATICS**  
Stockholm University

2010–2012 **B.SC. IN MATHEMATICS**  
Stockholm University

## Research Visits

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2018–2019 **Dept. of Economics, Massachusetts Institute of Technology**  
Faculty Sponsor: Prof. Drew Fudenberg

## Teaching and Research Fields

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FIELDS     Microeconomic Theory, Behavioral Economics, Experimental Economics

TOPICS     Machine Learning, Bounded Rationality, Learning in Games

## Working Papers

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“Rational Heuristics for One-Shot Games”  
*with Frederick Callaway and Thomas L. Griffiths* [Job Market Paper]

“Using Learning to Predict Average Cooperation”  
*with Drew Fudenberg*

“Stochastic Stability of a Recency Weighted Sampling Dynamic”  
*with Alexander Aurell*

## Ongoing projects

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“Cue Based Decision Making and Context Effects”

*with Benjamin Mandl*

“Estimation of Learning Models Using Approximate Bayesian Computation”

## Journal Publication in Mathematics

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“Schrödinger operators on graphs: symmetrization and Eulerian cycles”

*Proceedings of the American Mathematical Society*, 144, (2016)

*with Isak Trygg Kupersmidt and Pavel Kurasov*

## Research Grants and Awards

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2017 Tom Hedelius Scholarship for research visit to MIT.

2014 Scholarship for excellent Master Thesis from Mittag-Leffler’s fund.

## Teaching

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### Stockholm School of Economics

2020 TA: Global Challenges - Undergraduate course

2017 TA: Economics of Organization - Undergraduate course

2016,2017 Math summer camp - Preparatory math class for incoming Ph.D. students

2016,2017 TA: Mathematics I - Introductory mathematics for Ph.D. students

2016 TA: Advanced Microeconomics - Advanced level course on microeconomic theory

2012–2015 **Amanuensis**, Dept. of Mathematics, Stockholm University

Primarily teaching assistant in undergraduate mathematics. I also developed (designed and coded) a web-platform for a large distance course in preparatory mathematics.

## Presentations Outside of Home Department

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2021 Games, 6th World Congress of the Game Theory Society, Budapest; Applied Micro Seminar, Goethe University Frankfurt

2020 Nordic Exchange, NHH, Bergen; SUDSWEC, Uppsala University; ENTER/SWIPS, University College London

2019 Phd Math Fest, Stockholm; SING 15, Turku; Theory Lunch, MIT, Boston

2018 Theory Lunch, MIT, Boston

## Other Skills

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### Languages

Swedish (native), English (fluent), Spanish (very good)

### Programming

Julia, Python, R, Web Development (HTML, CSS, javascript, SQL, basic linux server administration etc.), and workable knowledge in many more such as STATA, Matlab, and Mathematica.

### Job Market Paper

#### ***“Rational Heuristics for One-Shot Games”***

*with Frederick Callaway and Thomas L. Griffiths (Dept. of Psychology, Princeton University)*

Insights from behavioral economics suggest that perfect rationality is an insufficient model of human decision-making. However, the empirically observed deviations from perfect rationality or biases vary substantially among environments. There is, therefore, a need for theories that inform us when and how we should expect deviations from rational behavior. We suggest that such a theory can be found by assuming optimal use of limited cognitive resources. In this paper, we present a theory of human behavior in one-shot interactions based on the rational use of heuristics. We test our theory by defining a broad family of heuristics for one-shot games and associated cognitive cost functions. In a large, preregistered experiment, we find that behavior is well predicted by our theory, which yields better predictions than existing models. We find that the participants’ actions depend on their environment and previous experiences, in the way the rational use of heuristics suggest.

### Working Papers

#### ***“Using Learning to Predict Average Cooperation”***

*with Drew Fudenberg (Dept. of Economics, MIT)*

We predict how cooperation varies with treatment in the experimental play of the indefinitely repeated prisoner’s dilemma using simulations of a simple learning model. We suppose that learning and the game parameters only influence play in the initial round of each supergame and that after these rounds, play depends only on the outcome of the previous round. Using data from 17 papers, we find that our model predicts out-of-sample cooperation at least as well as more complicated models with more parameters and harder-to-interpret machine learning algorithms. Our results let us predict how cooperation rates change with longer experimental sessions, and help explain past findings on the role of strategic uncertainty.

#### ***“Stochastic Stability of a Recency Weighted Sampling Dynamic”***

*with Alexander Aurell (Dept. of Operations Research and Financial Engineering, Princeton University)*

We introduce and study a model of long-run convention formation for rare interactions. Players in this model form beliefs by observing a recency-weighted sample of past interactions, to which they noisily best respond. We propose a continuous state Markov model, well-suited for our setting, and develop a methodology that is relevant for a larger class of similar learning models. We show that the model admits a unique asymptotic distribution which concentrates its mass on some minimal CURB block configuration. In contrast to existing literature of long-run convention formation, we focus on behavior inside minimal CURB blocks and provide conditions for convergence to (approximate) mixed equilibria conventions inside minimal CURB blocks.