

# CHRISTIAN DECKER

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## EDUCATION

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Ph.D. Economics, University of Zurich (Switzerland), 2017 – 2023 (expected graduation 06/2023).  
Research Interests: Health Economics, Empirical Industrial Organization, Structural Econometrics, Information Economics, Machine Learning & Causal Inference  
M.Sc. Economics and Social Science, Bocconi University (Milan, Italy), 2017.  
B.Sc. Economics (with Minor Mathematics), University of Mannheim (Germany), 2014.

## JOB MARKET PAPER

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### **What's in an Airbnb Five-Star Rating? An Empirical Model of Bayesian Persuasion**

*Abstract:* This paper studies the welfare effects of Airbnb's customer rating system using a structural empirical model of Bayesian persuasion with moral hazard. In 2019, over 71% of Airbnb listings in the United States displayed the highest possible rating of 5 stars. The Bayesian persuasion approach reveals that pooling all 'adequate' qualities above a certain threshold in this 5-star rating expands the set of listings customers may choose over the outside options, thereby increasing Airbnb's market shares and profits. I embed the Bayesian persuasion rating system design problem in a numerically solvable demand model of the short-term accommodation market. Moreover, the model incorporates Airbnb's pricing and the hosts' decision to join the platform and exert costly effort to improve their quality. I exploit variation in the rating distribution and market conditions across 56 major travel destinations in the United States over 2018 and 2019 to structurally estimate this model and back out the distribution of unobserved quality. Counterfactual exercises suggest that Airbnb's strategic rating system design led to a consumer welfare loss of US\$288M and a redistribution of profits from high- to medium-quality hosts of almost US\$750M compared to fully revealing ratings in the markets and period studied.

## PUBLICATION

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**P-hacking in clinical trials and how incentives shape the distribution of results across phases**  
(with Jérôme Adda and Marco Ottaviani)

*Proceedings of the National Academy of Sciences* 117 (24) 13386-13392, June 2020.

Related Op-eds: VoxEU, ProMarket.

## WORKING PAPERS

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**Pre-Registration and Credibility of Clinical Trials** (with Marco Ottaviani)

**The Order of Move in a Conversational War of Attrition**, *Accepted at Economics Letters*

## HONORS, SCHOLARSHIPS, AND GRANTS

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Zurich GSE PhD Dissertation Fellowship, 2022–2023.

Zurich GSE Director's Grant (US\$ 6,600, maximum amount), May 2021.

UBS Center Scholarship, 2017–2021.

UniCredit & Universities Masterscholarship, 2014–2016.

Bocconi Graduate Merit Award, 2014–2016.

## CONFERENCE PRESENTATIONS

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CEPR IO Virtual Gathering (October 2022).

Fourth Annual Theory of the Firm Conference on Academic Lobbying at Columbia University, NYC (December 2019).

Workshop on the Economics of Research and Experimentation at Bocconi University, Milan (March 2017).

## TEACHING EXPERIENCE

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*University of Zurich*

Industrial Economics (undergraduate), TA for Armin Schmutzler, Spring 2019 & Spring 2020.

Supervision of 1 Bachelor and 3 Master Theses, 2020 – 2023.

*University of Mannheim*

Introduction to Statistics (undergraduate), TA for Toni Stocker, Spring 2013.

## PROFESSIONAL ACTIVITIES

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Refereeing: *Economic Journal*, *Journal of Industrial Economics*.

Organization of the IO Reading Group and Team Meeting at the University of Zurich, 2020 – 2022.

Collaborator on ERC Advanced Grant 295835 EVALIDEA (PI Marco Ottaviani), 2015–2017.

IGIER Visiting Student Initiative, 2015–2016.

Internship at the Centre for European Economic Research (Mannheim, Germany) – Research Group “Competition and Regulation”, 2014.

## SKILLS

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### Programming

Julia, Mathematica, Matlab, Python, Stata.

### Languages

English (fluent), German (native), Italian (fluent), Latin.

## REFERENCES

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**Gregory S. Crawford** (*Main Advisor*)

Professor of Economics

University of Zurich

gregory.crawford@econ.uzh.ch

**Marco Ottaviani**

Professor of Economics

Bocconi University

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**Holger Sieg**

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Last updated: April 14, 2023