



Jiri Kukacka

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PROFILE

Jiri Kukacka is an economist based in Prague interested in financial econometrics, behavioral finance and macro, cryptoassets, ESG, and the development of simulation-based estimation methods. His work has been published in leading journals in the field, including JEDC, JEBO, and Business Ethics, and presented at around fifty international conferences and workshops.

EDUCATION

- 2011 – 2016/04 **Ph.D. in Economics, Charles University**
Financial Econometrics & Behavioral Finance, Thesis: *Estimation of Financial Agent-Based Models*
Supervisor: J. Barunik, Opponents: E. Gerba (LSE), L. Vacha (CAS), R. Zwinkels (VU Amsterdam)
- 2012 **Ph.D. in Economics, Charles University**
- 2008 – 2011 Master's degree in Economics, **Charles University**
- 2008 – 2009/01 **University of Bath, United Kingdom, Erasmus**
- 2005 – 2008 Bachelor's degree in Economic Theories, **Charles University**

ACADEMIC POSITIONS

- 2017/09+ **Assistant Professor, Charles University**
Faculty of Social Sciences, Institute of Economic Studies, Dept. of Macroeconomics and Econometrics
- 2016/05 – 2017/08 Postdoc
- 2013/10 – 2015/09 Member of the Center for Doctoral Studies
- 2023/12+ **Research Fellow, Czech Academy of Sciences**
Institute of Information Theory and Automation, Dept. of Econometrics
- 2021/12 – 2023/11 Research Associate
- 2016/05 – 2021/11 Postdoc
- 2013/03 – 2016/04 Ph.D. Candidate
- 2009/02 – 06 **Assistant to M. Mejstrik, National Economic Council (NERV)**
Economic analyses of financial topics during the preparation of the *National Crisis Packet*

RESEARCH VISITS

- 2023 **University of Florence, Italy**
Working with L. Bargigli, Dept. of Economics and Business Sciences, **workshop talk**
- 2023 **Hamburg Institute of International Economics, Germany**
Invited by M. Berlemann, **seminar talk**, working with S. Sacht, R. Franke
- 2022 **Sant'Anna School of Advanced Studies, Pisa, Italy**
Invited by F. Lamperti, Institute of Economics, **seminar talk**
- 2016 – 2022 **University of Kiel, Germany (5×, 7 weeks in total, invited visit in 2016)**
Dept. of Economics, **seminar talk**, working with S. Sacht, R. Franke, P. Zegadlo
- 2016/07 – 10 **University of California, Irvine, USA**
Postdoctoral Research Stay, Dept. of Economics, working with B. Branch

BIBLIOMETRY

Google Scholar

Scopus

Web of Science

Citations: 406

Citations: 200

Citations: 169

h-index: 10

h-index: 7

h-index: 6

Impact Factor Journals

14. Franke, R., Kukacka, J., Sacht, S. (2024). Is the Hamilton regression filter really superior to Hodrick–Prescott detrending? *Macroeconomic Dynamics*, pp. 1–14, [doi](#). 2023: IF=0.7, AIS=0.344.
13. Proano, C. R., Kukacka, J., Makarewicz, T. (2024). Belief-driven dynamics in a behavioral SEIRD macroeconomic model with sceptics. *Journal of Economic Behavior & Organization*, 217, pp. 312-333, [doi](#). 2023: IF=2.3 (Q2), AIS=1.085 (Q1).
12. Zila, E., Kukacka, J. (2023). Moment set selection for the SMM using simple machine learning. *Journal of Economic Behavior & Organization*, 212, pp. 366-391, [doi](#), [ORCID](#). IF=2.3 (Q2), AIS=1.085 (Q1).
11. Kukacka, J., Kristoufek, L. (2023). Fundamental and speculative components of the cryptocurrency pricing dynamics. *Financial Innovation*, 9 (61), pp. 1-23, [doi](#), [ORCID](#). IF=6.9 (D1 Business, Finance: 9/231), AIS=1.003 (Q2).
10. Kukacka, J., Sacht, S. (2023). Estimation of heuristic switching in behavioral macroeconomic models. *Journal of Economic Dynamics and Control*, 146, 104585, [doi](#), [ORCID](#). IF=1.9 (Q2), AIS=1.202 (Q1).
9. Havlinova, A., Kukacka, J. (2023). Corporate social responsibility and stock prices after the financial crisis: The role of strategic CSR activities. *Journal of Business Ethics*, 182, pp. 223-242, [doi](#). IF=5.9 (D1 Ethics: 3/77; Q1 Business), AIS=1.926 (D1 Ethics: 5/77; Q1 Business).
8. Kukacka, J., Kristoufek, L. (2021). Does parameterization affect complexity of agent-based models? *Journal of Economic Behavior & Organization*, 192, pp. 324-356, [doi](#), [ORCID](#). IF=2.0, AIS=1.280 (Q2).
7. Vainer, J., Kukacka, J. (2021). Nash Q-learning agents in Hotelling’s model: Reestablishing equilibrium. *Communications in Nonlinear Science and Numerical Simulation*, 99, 105805, [doi](#), [ORCID](#). IF=4.186 (D1 Mathematics, Applied: 9/267; Q1 Mathematics, Interdisciplinary), AIS=0.853 (Q2).
6. Kukacka, J., Kristoufek, L. (2020). Do ‘complex’ financial models really lead to complex dynamics? Agent-based models and multifractality. *Journal of Economic Dynamics and Control*, 113, 103855, [doi](#), [ORCID](#). IF=1.588, AIS=1.062 (Q2).
5. Polach, J., Kukacka, J. (2019). Prospect Theory in the heterogeneous agent model. *Journal of Economic Interaction and Coordination*, 14 (1), pp. 147-174, [doi](#). IF=1.565 (Q2), AIS=0.403.
4. Stanek, F., Kukacka, J. (2018). The impact of the Tobin tax in a heterogeneous agent model of the foreign exchange market. *Computational Economics*, 51 (4), pp. 865-892, [doi](#). IF=1.185, AIS=0.305.
3. Kukacka, J., Barunik, J. (2017). Estimation of financial agent-based models with simulated maximum likelihood. *Journal of Economic Dynamics and Control*, 85, pp. 21-45, [doi](#). IF=1.579 (Q2), AIS=1.133 (Q2).
2. Barunik, J., Kukacka, J. (2015). Realizing stock market crashes: Stochastic cusp catastrophe model of returns under the time-varying volatility. *Quantitative Finance*, 15 (6), pp. 959-973, [doi](#). IF=0.794, AIS=0.633 (Q2).
1. Kukacka, J., Barunik, J. (2013). Behavioural breaks in the heterogeneous agent model: The impact of herding, overconfidence, and market sentiment. *Physica A: Statistical Mechanics and its Applications*, 392 (23), pp. 5920-5938, [doi](#). IF=1.722 (Q2 Physics, Multidisciplinary), AIS=0.473 (Q2).


Chapters in Books

1. Kukacka, J. (2019). Simulated maximum likelihood estimation of agent-based models in economics and finance. In: Chakrabarti, A., Pichl, L., Kaizoji, T. (eds). *Network theory and agent-based modeling in economics and finance*. Springer, Singapore, [doi](#).

Working Papers

3. Franke R., Kukacka, J. (2020). Notes on the neglected premisses of the Hodrick-Prescott detrending and the Hamilton regression filter. *SSRN Working Paper 3747794*, [doi](#).
2. Brakatsoulas, P., Kukacka, J. (2020). Credit rating downgrade risk on equity returns. *IES CUNI Working Papers*, 12/2000, [doi](#).
1. Kukacka, J., Jang, T.-S., Sacht, S. (2018). On the estimation of behavioral macroeconomic models via simulated maximum likelihood, *Kiel University Economics Working Paper No. 2018-11*, [doi](#).

Submissions/In Preparation

6. Zila, E., Kukacka, J. (2024). Wealth, cost, and misperception: Empirical estimation of three interaction channels in a financial-macroeconomic agent-based model. *IES CUNI Working Papers, 22/2024*, [doi](#), .
5. Sila, J., Kocenda, E., Kristoufek, L., Kukacka, J. (2024). Good vs. bad volatility in major cryptocurrencies: The dichotomy and drivers of connectedness. *IES CUNI Working Papers, 24/2023*, [doi](#). Resubmitted after revision to *Journal of International Financial Markets, Institutions & Money*.
4. Petrasek, L., Kukacka, J. (2024). US equity announcement risk premia. *Revise&Resubmit in Review of Quantitative Finance and Accounting*.
3. Sila, J., Kocenda, E., Kristoufek, L., Kukacka, J. (2024). Determinants of wash trading in major cryptoexchanges. Presented at COMPSTAT 2024.
2. Bargigli, L., Kukacka, J. (2024). Investor sentiment in high-frequency financial data. Presented at WEHIA 2023.
1. Franke, R., Kukacka, J., Sacht, S. (2023). Reconsidering Hodrick-Prescott detrending and its smoothing parameter: Extended version. *SSRN Working Paper 4147280*, [doi](#). Revision for *Metroeconomica*.

INTERNATIONAL COLLABORATIONS

S. Sacht (Hamburg Institute of International Economics & University of Kiel, Germany)

C. R. Proano and T. Makarewicz (University of Bamberg, Germany)

R. Franke (University of Kiel, Germany)

L. Bargigli (University of Florence, Italy)

B. Branch (University of California, Irvine, USA)

GRANT SUPPORT

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|-------------|--|
| 2024 – 2026 | Czech Science Foundation (GAČR), 24-11558S (Team Member) Hedging uncertainty in commodity markets |
| 2024+ | Charles University, UNCE 24/SSH/020 (Participant) Center for Advanced Economic Studies II |
| 2023 – 2025 | Czech Science Foundation (GAČR), 23-06606S (Team Member) Deep dive into decentralized finance: Market microstructure, and behavioral and psychological patterns |
| 2020 – 2022 | Czech Science Foundation (GAČR), 20-14817S (Principal Investigator) Linking financial and economic agent-based models: An econometric approach |
| 2020 – 2022 | Czech Science Foundation (GAČR), 20-17295S (Team Member) Cryptoassets: Pricing, interconnectedness, mining, and their interactions |
| 2019 – 2021 | Charles University, PRIMUS/19/HUM/017 (Team Member) Behavioral finance and macroeconomics: New insights for the mainstream |
| 2018 – 2023 | Charles University, UNCE/HUM/035 (Participant) Center for Advanced Economic Studies |
| 2016 – 2017 | Charles University, UNCE 204005/2012 (Participant) Center for Advanced Economic Studies |
| 2017 – 2019 | Czech Science Foundation (GAČR), 17-12386Y (Team Member) Multifractality analysis in finance: Extreme events, portfolio and risk management, and market complexity |
| 2014 – 2016 | European Commission, FP7 EU 612955.SSH-2013.1.3-2: FinMaP (Team Member) Financial distortions and macroeconomic performance: Expectations, constraints and interaction of agents |
| 2015 | Grant Agency of the Charles University (GAUK), G192215 (Principal Investigator) Simulated ML estimation of financial agent-based models |
| 2013 – 2018 | Czech Science Foundation (GAČR), P402/12/G097 DYME (Team Member) Dynamic Models in Economics (Excellence project) |
| 2012 – 2014 | Grant Agency of the Charles University (GAUK), 588912 (Principal Investigator) Empirical validation of heterogeneous agent models |

CONFERENCE PRESENTATIONS

| | | |
|------|--|------------|
| 2024 | 7th Cryptocurrency Research Conference | Dubai |
| | International Conference on Economic Policy in Complex Environments | Milan |
| | 6th Behavioral Macroeconomics Workshop | Heidelberg |
| | 8th Workshop in Financial Markets and Nonlinear Dynamics | Paris |
| 2023 | 2nd DISEI Workshop on Heterogeneity, Evolution and Networks | Florence |
| | Conference on Computational Statistics | London |
| | 7th Workshop in Financial Markets and Nonlinear Dynamics | Paris |
| 2022 | Conference on Computational and Financial Econometrics | online |
| | Workshop on Data-Driven Economic Agent-Based Models | Pisa |
| | Workshop on Model Evaluation and Causal Search | Pisa |
| | Conference on Computational Statistics | Bologna |
| | Econophysics Colloquium | online |
| | 4th Behavioral Macroeconomics Workshop | Bamberg |
| | Workshop on Computational and Experimental Economics | Barcelona |
| | 6th Workshop in Financial Markets and Nonlinear Dynamics | Paris |
| 2021 | Econophysics Colloquium | Lyon |
| | Conference on New Trends in Econometrics and Finance | online |
| | 1st DISEI Workshop on Heterogeneity, Evolution and Networks | Florence |
| | First International Workshop on Agentization | online |
| | Workshop on Economic Science with Heterogeneous Interacting Agents | online |
| | Conference on Econometrics and Statistics | online |
| 2020 | Conference on New Trends in Econometrics and Finance | online |
| | Econometric Research in Finance | online |
| | Annual EAEPE Conference | online |
| | Annual Conference of the Eastern Economic Association | Boston |
| 2019 | Conference on Computational and Financial Econometrics | London |
| | International CSR, Ethics and Sustainable Business | Braga |
| | Annual EAEPE Conference 2019 | Warsaw |
| | Computing in Economics and Finance (session chair) | Ottawa |
| | Workshop on Economic Science with Heterogeneous Interacting Agents (session chair) | London |
| | 2nd Behavioral Macroeconomics Workshop | Bamberg |
| 2018 | Workshop on Economic Science with Heterogeneous Interacting Agents | Tokyo |
| | Computing in Economics and Finance | Milan |
| 2017 | Workshop on Economic Science with Heterogeneous Interacting Agents | Milan |
| | Computing in Economics and Finance | New York |
| 2016 | Workshop on Economic Science with Heterogeneous Interacting Agents | Castellon |
| | Computing in Economics and Finance | Bordeaux |
| | Collaborative EU Project FinMaP General Assembly Meeting | Leuven |
| 2015 | Conference on Computational and Financial Econometrics | London |
| | Econophysics Colloquium (session chair) | Prague |
| | Computing in Economics and Finance | Taipei |
| | First Bordeaux-Milano Joint Workshop on A-B Macro | Bordeaux |
| | Workshop on Economic Science with Heterogeneous Interacting Agents | Nice |
| 2014 | Conference on Computational and Financial Econometrics | Pisa |
| | Social Modeling and Simulations + Econophysics Colloquium | Kobe |
| | Workshop on Economic Science with Heterogeneous Interacting Agents | Tianjin |
| 2013 | Workshop on AB Approaches in Economic and Social Complex Systems | Tokyo |
| | Workshop on Economic Science with Heterogeneous Interacting Agents | Reykjavik |
| 2012 | Conference on Computational and Financial Econometrics | Oviedo |
| | Computing in Economics and Finance | Prague |
| | Latsis Symposium and Workshop | Zurich |
| | Workshop on Economic Science with Heterogeneous Interacting Agents | Paris |

SUMMER SCHOOLS AND WORKSHOPS

| | | |
|------|---|---|
| 2020 | Foundation course on DSGE Modelling (6-day course) | University of Surrey |
| | Behavioral Macro and Complexity (5-days course) | Timbergen Institute |
| 2017 | Workshop on Validation Methods for Agent-Based Models | Kent |
| 2016 | WEHIA Doctoral Summer School | Paris (2016), Reykjavik (2015), Tianjin (2014), Nice (2013), Castellon (2012) |
| | Collaborative EU Project FinMaP General Assembly Meeting | Rome |
| 2015 | First Ancona-Milano Summer School on Agent-Based Economics | Ancona |
| 2014 | CEF SCE Workshops on ABM and Complexity in Economics | Taipei |
| | Conference on Behavioral Aspects in Macroeconomics and Finance | Milan |
| | Agent-Based Modeling teaching course | Leipzig |
| 2013 | First Bordeaux Workshop on Agent-Based Macroeconomic | Bordeaux |
| | 4th Summer School of the European Social Simulation Association | Hamburg |

ACADEMIC MEMBERSHIPS

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| 2021 – 2023 | Representative of FSV UK in Rada vysokych skol Member of the Economic Commission |
| 2014 – 2023 | Academic Senator FSV UK Terms: 2014 – 2016, 2018 – 2021, 2022 – 2023, Chair of the Legislative Commission 2019 – 2021, 2022 – 2023 |
| 2014+ | Disciplinary Committee FSV UK |
| 2012+ | Society for Economic Science with Heterogeneous Interacting Agents |
| 2012+ | Society for Computational Economics |
| 2009 – 2011 | Charles University International Club |
| 2007 – 2012 | E-Klub, students' economic club, Charles University |

TEACHING AND SUPERVISION

| | | |
|-------------|---|------------------|
| 2022+ | Econometrics I , Course Leader (2023+) and Lecturer | bachelor's level |
| 2017+ | Introductory Econometrics , Course Supervisor and Lecturer | master's level |
| 2012+ | Applied Econometrics , Lecturer (2024+) and Teaching Assistant | master's level |
| 2018 – 2023 | Behavioral Economics and Finance , Lecturer | bachelor's level |
| 2015 – 2017 | Advanced Econometrics , Teaching Assistant | master's level |
| 2011 – 2015 | Econometrics II , Teaching Assistant | bachelor's level |
| 2013+ | Theses Supervision : 2 doctoral, 13 master's, 24 bachelor's theses | |

AWARDS

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| 2017 | Lindau Nobel Laureate Meeting participation Selected among thousands of young researchers from over 70 countries to represent Czechia in the prestigious 6th Lindau Nobel Laureate Meeting on Economic Sciences that hosted 18 Nobel Laureates in Economics Sciences |
| 2023 | Best Course Teaching Award for Econometrics I |
| 2023 | IES FSV UK Alumni Chair |
| 2015 | Best Course Teaching Award for Advanced Econometrics |
| 2014 – 2020 | Best Course Teaching Award Applied Econometrics (in 2014, 17, 20) |
| 2012 – 2021 | Golden Course Faculty Teaching Award for Applied Econometrics (in 2012, 18, 19, 20, 21) |
| 2011 | Dean's Award for an extraordinarily good master's diploma thesis |
| 2009 – 2011 | RWE Scholarship for graduate students |
| 2008 | Dean's Award for an excellent Final State Exam performance and for an extraordinarily good bachelor's diploma thesis |

PROFESSIONAL SERVICES

- 2023+ **Grant Agency of the Charles University (GAUK)**
Member of the Evaluation Panel for Economic Sciences
- 2021+ **Editorial Board**, Springer Nature Business & Economics
- 2018+ **Editorial Board**, Prague Economic Papers

Refereeing

Review of Economic Dynamics, Journal of Economic Behavior & Organization (4×), Journal of Economic Dynamics and Control (3×), International Review of Financial Analysis, Quantitative Finance (2×), Financial Innovation, Macroeconomic Dynamics, Economic Modelling, Computational Economics (4×), Journal of Economic Interaction and Coordination (5×), Springer Nature Business & Economics, Advances in Complex Systems, Physica A, Review of Behavioral Finance, Metroeconomica, Emerging Markets Finance and Trade, International Review of Economics and Finance, PLOS One, e-journal Economics, Scottish Journal of Political Economy, Czech Journal of Economics and Finance (5×), Prague Economic Papers (3×), Czech National Bank Working Papers

SUCSESSES OF MY STUDENTS

- 2024 *J. X. Ji*: IES Director Award 2024 (bachelor's level)
- 2023 *K. Coufalova*: admitted to the **University of Oxford**
T. Bielakova: Deloitte Outstanding Thesis Award (bachelor's level), admitted to **ETH Zurich**
- 2022 *A. Macejovsky*: Deloitte Outstanding Thesis Award (master's level)
- 2021 *E. Zila*: Deloitte Outstanding Thesis Award (bachelor's level)
- 2020 *R. Wojnarova*: Deloitte Outstanding Thesis Award (master's level)
K. Havelkova: Deloitte Outstanding Thesis Award (master's level)
S. Bolshakov: Deloitte Outstanding Thesis Award (bachelor's level)
- 2018 *J. Vainer*: Deloitte Outstanding Thesis Award (bachelor's level)
- 2017 *A. Pintekova*: **Josef Vavrousek Award FSV UK**
- 2016 *J. Polach*: MSc in Finance at the **London School of Economics**
- 2014 *F. Stanek*: Dean's Award for an extraordinarily good bachelor's thesis

SKILLS AND INTERESTS

Languages

- English**: Fluent, C1 Advance (CAE) certificate from 2009, work and study in the USA and UK
- German**: Intermediate passive
- Czech**: Mothertongue

Technical Skills

Julia, R, Matlab, Gretl, \LaTeX , Jupyter, Git, parallel computing

Interests

- Trips with our kids
- Sports and outdoor pursuits (bikepacking, bivouacking, long-distance cycling, jogging)
- Travelling (so far 54 countries visited, the most interesting: Tajikistan, Mountainous Karabakh, Japan)

updated August 7, 2024