

# Curriculum Vitae

## Mahdi Ebrahimi Kahou

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### PERSONAL INFORMATION

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Citizenship: Canadian, Iranian  
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### RESEARCH INTERESTS

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Macroeconomics, Machine Learning, Econometrics, and Computational Economics.

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### EDUCATION

- Doctor of Philosophy in Economics, [University British Columbia](#). 2017-  
Committee: [Dr. Jesse Perla](#) (UBC), [Dr. Jesús Fernández-Villaverde](#) (UPenn),  
[Dr. Hiroyuki Kasahara](#) (UBC), [Dr. Vadim Marmer](#) (UBC)
  - Visiting scholar at Federal Reserve Bank of Minneapolis. October 2022
- Doctor of Philosophy in Economics, [University of Minnesota](#).  
Voluntary withdrawal due to the U.S. travel ban after finishing the first year.
- Master of Science in Physics,  
[Institute for Quantum Science and Technology](#), [University of Calgary](#).  
Thesis Topic: [Spatial search via non-linear quantum walk](#)  
Supervisor: [Dr. David Feder](#)
- Bachelor of Science in Physics, [Sharif University of Technology](#).

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### WORKING PAPERS

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- [“Exploiting Symmetry in High-Dimensional Dynamic Programming”](#), NBER Working Paper, 2021. (Job market paper)  
With [Jesús Fernández-Villaverde](#), [Jesse Perla](#), and [Arnav Sood](#).
  - [“Spooky Boundaries at a Distance: Exploring Transversality and Stability with Deep Learning”](#).  
With [Jesús Fernández-Villaverde](#), [Sebastian Gomez Cardona](#), [Jesse Perla](#), and [Jan Rosa](#).
  - [“Optimal Entry Decision with Correlated Variable Cost and Output Price”](#).

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### WORK IN PROGRESS

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- [“Solving Equilibrium Economic Models with Deep Learning”](#).  
With [Jesús Fernández-Villaverde](#) and [Jesse Perla](#).

## PUBLICATIONS

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- “Quantum Search with Interacting Bose-Einstein Condensates”, Physical Review A, 2013. (With David L. Feder)
- “Macroprudential Policy: A Review”, Journal of Financial Stability, 2017. (With Alfred Lehar)

## SCHOLARSHIPS, AWARDS AND HONOURS

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- Selected for 71st Lindau Nobel Laureate Meeting on Economic Sciences.
- Social Sciences and Humanities Research Council (SSHRC) Doctoral Fellowship.
- Four Year Doctoral Fellowship (UBC).
- Faculty of Graduate Studies Award (University of Calgary).
- Institute for Quantum Science and Technology “Top-Up Students Award” (University of Calgary).
- Bronze medal in National Physics Olympiad.

## PRESENTATIONS

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- University of Colorado Boulder, Scheduled for December 2022.
- University of Minnesota, Scheduled for October 2022.
- “Spooky Action at the Boundary: A Note on Transversality Condition and Stationarity”. Society For Economic Dynamics, Madison, June 2022.
- “Spatial Search by Non-Linear Quantum Walk”. Southwest Quantum Information and Technology, Albuquerque, February 2012.
- “Non-linear Quantum Walk”. Canadian Association of Physicists, Calgary, June 2012.

## REFERENCES

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- Dr. Jesse Perla  
Associate Professor of Economics  
University of British Columbia  
6000 Iona Drive, Vancouver, BC Canada V6T 1L4.  
Phone: +1 604 822-5721  
E-mail: [jesse.perla@ubc.ca](mailto:jesse.perla@ubc.ca).
- Dr. Jesús Fernández-Villaverde  
Professor of Economics  
University of Pennsylvania  
The Ronald O. Perelman Center for Political Science and Economics  
133 South 36th Street, Philadelphia, PA 19104.  
Phone: +1 215 573-1504  
E-mail: [jesusfv@econ.upenn.edu](mailto:jesusfv@econ.upenn.edu)
- Dr. Hiroyuki Kasahara  
Professor of Economics  
University of British Columbia  
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Phone: +1 604 822-4814  
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- Dr. Vadim Marmer  
Professor of Economics  
University of British Columbia  
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Phone: +1 604 822-8217  
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TEACHING  
EXPERIENCE

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- TA for Computational Economics with Data Science Applications, UBC. 2019
- TA for Information and Incentive (graduate), UBC. 2019
- TA for PhD Econometrics Theory, UBC. 2018
- TA for honor level macroeconomics and microeconomics, UBC. 2019-2020
- TA Economic Growth, University of Minnesota. 2016
- TA for Phys 211/221, Phys 259 and Phys 369, University of Calgary. 2010-2012
- TA for Analytical Mechanics I&II, Sharif University of Technology. 2007-2008

COMPUTER  
PROGRAMMING

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- MATLAB, Mathematica, Julia, Python.