

# Curriculum Vitae

## Mahdi Ebrahimi Kahou

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### PERSONAL INFORMATION

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Citizenship: Canadian  
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### RESEARCH INTERESTS

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Macroeconomics, Machine Learning, Econometrics, and Computational Economics.

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### EMPLOYMENT

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- Assistant Professor of Economics, Bowdoin College 2023-

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### EDUCATION

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- Doctor of Philosophy in Economics, [University British Columbia](#). 2017-2023  
Thesis: [Essays on theory and computation in economics](#)
  - 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: [Spatial search via non-linear quantum walk](#)
- 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.  
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”](#).
- [“How Inductive Bias in Machine Learning Aligns with Optimality in Economic Dynamics”](#)  
With James Yu, Jesse Perla, and Geoff Pleiss

## 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 AND INVITED TALKS

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- 2024: Toronto Metropolitan University, ACM (Economics and Computation, Yale), Southern Economic Association
- 2023: TeIAS, Econometric Society Summer School in Dynamic Structural Econometrics (invited), University of Toronto, University of Calgary (Haskayne School of Business), Bowdoin College, Bates College, University of Waterloo, Western University, McGill, Bank of Canada, University of Missouri.
- 2022: Society For Economic Dynamics (Madison), University of Minnesota, University of Colorado Boulder.
- 2012: Southwest Quantum Information and Technology(Albuquerque), Canadian Association of Physicists (Calgary).

## TEACHING EXPERIENCE

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- Mathematical Economics. 2024
- Principles of Macroeconomics, Bowdoin. 2023-2024
- Intermediate Macroeconomics. Bowdoin 2023-24

## COMPUTER PROGRAMMING

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- MATLAB, Mathematica, Julia, Python.

## 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.  
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