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| CONTACT INFORMATION | University of British Columbia Vancouver School of Economics 6000 Iona Drive Vancouver, BC, V6T 2E8 | <i>Email:</i> jesse.perla@ubc.ca <i>Email:</i> jesseperla@gmail.com http://jesseperla.com https://github.com/jlperla/ |
| CITIZENSHIP | Canadian, American | |
| INTERESTS | Macroeconomics, Machine Learning, Growth, Macro-Development, Bounded Rationality | |
| POSITIONS | Associate Professor, UBC Vancouver School of Economics Associate Member, UBC Computer Science | |
| OTHER AFFILIATIONS | Member, UBC Centre for Artificial Intelligence Decision-making and Action (CAIDA) Faculty Affiliate, UBC Institute of Applied Mathematics Core Faculty, UBC Centre for Computational Social Science Faculty Affiliate, Stone Center for Wealth Inequality | |
| EDUCATION | Ph.D., Economics, May 2013 New York University, New York, NY, USA <i>Fields:</i> Macroeconomics, Industrial Organization <i>Committee:</i> Boyan Jovanovic, Thomas J. Sargent, Jess Benhabib B.Sc. Applied Mathematics, 1997 Columbia University, New York, NY | |
| PUBLISHED PAPERS | Equilibrium Imitation and Growth (with Christopher Tonetti) <i>Journal of Political Economy</i> , 2014 Catch-up and Fall-back through Innovation and Imitation (with Jess Benhabib and Christopher Tonetti) <i>Journal of Economic Growth</i> , 2014 Equilibrium Technology Diffusion, Trade, and Growth (with Christopher Tonetti and Michael Waugh) <i>American Economic Review</i> , 2021 Reconciling Models of Diffusion and Innovation: A Theory of the Productivity Distribution and Technology Frontier (with Jess Benhabib and Christopher Tonetti) <i>Econometrica</i> , 2021 Eigendecomposition of Tau Matrices and Applications (with Sven-Erik Ekstrom, Carlo Garoni, and Adam Jozefiak) <i>Linear Algebra and Its Applications</i> , 2021 Commitment and Investment Distortions Under Limited Liability (with Carolin Pflueger and Michal Szkup) <i>Journal of Economic Theory</i> , 2024 | |
| WORKING PAPERS | A Theory of Dynamic Product Awareness and Targeted Advertising (with Larent Cavenaile, Murat Celik, and Pau Roldan-Blanco) <i>R&R at the Journal of Political Economy</i> Differentiable State-Space Models and Hamiltonian Monte Carlo Estimation (with Rachel Childers, Jesus Fernández-Villaverde, Christopher Rackauckas, and Peifan Wu) <i>R&R at the Journal of Econometrics</i> | |

Exploiting Symmetry in High-Dimensional Dynamic Programming (with Mahdi Ebrahimi Kahou, Jesus Fernández-Villaverde, and Arnav Sood)

NBER Working Paper

Spooky Boundaries at a Distance: Inductive Bias and Dynamic Macroeconomic Models (with Mahdi Ebrahimi Kahou, Jesus Fernández-Villaverde, Sebastian Gomez, and Jan Rosa)

R&R at the Journal of Monetary Economics

How Inductive Bias in Kernel Methods Aligns with Optimality in Economic Dynamics (with Mahdi Ebrahimi Kahou and Geoff Pleiss)

arXiv Working Paper

Taming the Curse of Dimensionality: Quantitative Economics with Deep Learning (with Jesus Fernández-Villaverde and Galo Nuño)

R&R at Quantitative Economics

WORKS IN PROGRESS

Technology Adoption and the The Big Pull (with Michael Peters)

GRANTS AND AWARDS

Bank of Canada Governor's Award (2021-2022)

SSHRC Insight Grant (2023-2025), \$155,400

Deep learning methods for solving high-dimensional equilibrium models

SSHRC Insight Development Grant (co-applicant 2021-2022), \$58,635

Monopsony or Peer Effects? Disentangling the Importance of Firms in the Labor Market

SSHRC Insight Grant (2018-2021), \$159,183

Coordination frictions in macro-development: spatial equilibrium, technology traps, and industrial policy

SSHRC Insight Development Grant (2018-2020), \$68,834

Debt Overhang and Over-Investment

SSHRC Insight Development Grant (2015-2017), \$43,000

Why Doesn't Technology Diffuse through Migration?

Hampton Grant (2014-2015), \$22,000

The Growth Dynamics of Innovation, Diffusion, and the Technology Frontier

BOOKS

Quantitative Economics with Julia (with Thomas J. Sargent and John Stachurski)

Online textbook: <https://julia.quantecon.org/>

QuantEcon DataScience (with Chase Coleman, Spencer Lyon, and Collaborators)

Online textbook: <https://datascience.quantecon.org/>

SEMINARS, CONFERENCES, AND VISITING SCHOLAR

2024: ACM-EC Workshop Organizer

2023: Richmond Fed, Western, Future of AI and Economics at HBS

2022: Bank of Canada, Uppsala, Peking University

2021: AEA, Canadian Macro Study Group, Bank of Canada Fellowship Learning Exchange, Boston College, Queens, Georgetown, Boston University, UCL

2020: HEC Paris

2019: SED (Organizing Committee), NBER Summer Institute (discussant)

2018: University of Pennsylvania, University of Toronto Rotman, Yale (Cowles Visiting Scholar), SED (Organizing Committee)

2017: UCSD, Stanford, Philadelphia Fed, Minneapolis Fed (Visiting Scholar), WashU Mini-Conference on Macro-Development, Minnesota Macro Theory, St. Louis Fed

2016: Simon Fraser University

2015: UC Berkeley, University of Pennsylvania, University of Pennsylvania Wharton, Columbia University, AEA, Cowles Foundation (discussant), Nottingham University Conference on Firm and Technology Dynamics

2014: San Francisco Federal Reserve, Cowles Foundation (discussant)

2013: UCLA, UCSD, Minnesota

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| TEACHING EXPERIENCE | <p>University of British Columbia, Vancouver, BC, Canada</p> <p>ECON526 - Quantitative Economics with Data Science Applications (masters)</p> <p>ECON622 - Computational Economics with Data Science Applications (PhD)</p> <p>Created course and moved to approval by the UBC Senate</p> <p>ECON323 - Quantitative Economic Modeling with Data Science Applications (undergraduate)</p> <p>Created course and moved to approval by the UBC Senate</p> <p>ECON302 - Intermediate Macroeconomics (undergraduate)</p> <p>ECON307 - Honors Intermediate Macroeconomics (undergraduate)</p> <p>ECON408 - Computational Methods in Macroeconomics (undergraduate)</p> <p>Created course and moved to approval by the UBC Senate</p> <p>ECON546 - Monetary Theory and Policy (graduate)</p> |
| SERVICE | <p>University of British Columbia, Vancouver, BC, Canada</p> <p>Computer Lab Committee</p> <p>Comps Committee</p> <p>Executive Committee</p> <p>Instructor Recruitment Committee</p> <p>Recruitment Committee</p> <p>Bank of Canada Governor's Challenge (Undergrad Team won 1st Place)</p> <p>Centre for Innovative Data in Economics Research (CIDER) Board Member</p> <p>VSE Director Selection Committee</p> <p>Computer Science Recruitment Committee</p> <p>Advisory Committee of the SciML (https://sciml.ai/) organization</p> |
| PHD STUDENT PLACEMENTS | <p>University of British Columbia, Vancouver, BC, Canada</p> <p>Colin Caines, Committee Member (Placed at Federal Reserve Board)</p> <p>João Alfredo Galindo da Fonseca, Committee Member (Placed at Université de Montréal)</p> <p>Sev Hou, Advisor (Placed at Chinese University of Hong Kong, Shenzhen now SFU)</p> <p>Dongxiao Zhang, Committee Member (Placed at Veeva Systems)</p> <p>Nadhanael Gemaliel Vimala, Committee Member (Reserve Bank of India)</p> <p>Mahdi E. Kahou, Supervisor (Placed at Bowdoin College)</p> <p>Ali Karimarad, Committee Member (Placed at University of Washington)</p> <p>Alejandro Roja-bernal, Committee Member (Placed at University of Hawaii)</p> <p>Josh Catalan, Committee Member</p> <p>Jan Rosa, Committee Member (Placed at OECD)</p> <p>Giulia Lo Forte, Committee Member (Placed at Fed Board)</p> <p>Mila Markevych, Committee Member (Placed at UNC Charlotte)</p> <p>Neil Newman (Computer Science), Committee Member</p> <p>Betty Shea (Computer Science), Committee Member</p> <p>Narun Raman (Computer Science), Committee Member</p> |
| REFeree | <p>Econometrica, American Economic Review, Quarterly Journal of Economics, Journal of Political Economy, Review of Economic Studies, AEJ: Macro, Journal of Economic Growth, Journal of International Economics, International Economic Review, Review of Economic Dynamics, European Economic Review, Journal of Economic Theory, Theoretical Economics, Journal of Development Economics, Canadian Journal of Economics, Journal of Economic Literature, Macroeconomic Dynamics, Journal of Economic Behavior & Organization</p> |
| OTHER EXPERIENCE | <p>CTO/Founder/Director of Research/Software Engineer at technology firms (1995-2006)</p> |