AMILCAR VELEZ

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EDUCATION

Northwestern University
Ph.D. Candidate in Economics — Sep 2019 - Present
Committee: Ivan A. Canay (co-chair), Federico A. Bugni (co-chair), Joel L. Horowitz.

M.A. in Economics — 2020

Instituto Nacional de Matemática Pura e Aplicada (IMPA)
M.S. in Mathematics — 2015

Pontificia Universidad Católica del Perú (PUCP)
B.A. in Economics — 2014

PUBLISHED PAPERS

1. Posterior Distribution of Non-differentiable Functions, joint with Toru Kitagawa, José Luis Montiel Olea, and Jonathan Payne, ***Journal of Econometrics***, Vol. 217 (1), pp. 161-175, 2020.

2. On the Robustness to Misspecification of α-posteriors and Their Variational Approximations, joint with Marco Avellana, José Luis Montiel Olea, and Cynthia Rush, ***Journal of Machine Learning Research***, Vol. 23 (147), pp. 1-51, 2022.

3. The A/B Testing Problem with Gaussian Priors, joint with Eduardo M. Azevedo, David Mao, and José Luis Montiel Olea, ***Journal of Economic Theory***, Vol. 210, pp. 1-23, 2023.

4. A User's Guide for Inference in Models Defined by Moment Inequalities, joint with Ivan A. Canay and Gaston Illanes. ***Accepted at Journal of Econometrics.***

WORKING PAPERS

5. The out-of-sample prediction error of the $\sqrt{LASSO}$ and related estimators, joint with José Luis Montiel Olea, Cynthia Rush, and Johannes Wiesel. Re-submitted to ***Annals of Statistics***.

6. The Local Projection Residual Bootstrap for AR(1) Models. Revision requested by ***Econometric Theory***.

7. Identification and Inference on Treatment Effects under Covariate-Adaptive Randomization and Imperfect Compliance, joint with Federico Bugni, Mengsi Gao, and Filip Obradović. Submitted.

8. On the Power Properties of Confidence Sets for Parameters with Interval Identified Sets, joint with Federico Bugni, Mengsi Gao, and Filip Obradović. Submitted.

9. Representation Learning in Linear Factor Models, joint with José Luis Montiel Olea.

10. Linear IV Model with Missing Data on the Instrumental Variable.

WORK IN PROGRESS

11. Non-Standard Asymptotic Approximations for Debiased Machine Learning Estimators.

RESEARCH EXPERIENCE

- ⋆ Research Assistant, Prof. Federico A. Bugni (Northwestern University). Summer 2022, Winter 2023
- ⋆ Research Assistant, Prof. Ivan A. Canay (Northwestern University). Fall 2020, Winter 2021

TEACHING EXPERIENCE

- ⋆ Instructor, Econometrics Review, Northwestern University (Graduate). Summer 2023
- ⋆ Teaching Assistant, Econ 480-1, Northwestern University (Graduate). Fall 2021
- ⋆ Teaching Assistant, Econ 480-3, Northwestern University (Graduate). Spring 2021, 2022
- ⋆ Teaching Assistant, Econ 281, Northwestern University (Undergraduate). Winter 2022, Spring 2023
- ⋆ Teaching Assistant, Econ 329, Northwestern University (Undergraduate). Fall 2022

PROFESSIONAL EXPERIENCE

Referee Service

- ⋆ AER: Insights, Journal of Business & Economic Statistics.

Central Bank of Perú (BCRP)

- ⋆ Macro Modelling Division. May 2018 - Jul 2019
- ⋆ Financial Stability Division. May 2014 - Apr 2018
  (*on leave 2015*)

AWARDS, FELLOWSHIPS, AND SCHOLARSHIPS

- ⋆ Dissertation University Fellowship: Northwestern University 2024
- ⋆ Robert Eisner Graduate Fellowship: Northwestern University 2023
- ⋆ University Fellowship by The Graduate School: Northwestern University 2019
- ⋆ Best Employee at Central Bank of Perú by leading the estimation team. Jun 2018
- ⋆ CNpQ Scholarship: Brazilian Government Scholarship. 2015
- ⋆ IMPA Visiting Student Scholarship. Jan - Feb 2015
- ⋆ 61st Summer Program at BCRP approved with distinction. 2014
- ⋆ BEAS-PUCP Scholarship: for outstanding lower-income students. 2011-14
- ⋆ IMPA Summer Program Scholarship. 2009-10, 12-13
- ⋆ PUCP Scholarship: by outstanding performance in competitions abroad. Aug 2009 - 2010
- ⋆ Silver Medal in the 24th & 23rd Iberoamerican Mathematical Olympiad. 2008 & 2009
- ⋆ Bronze Medal in the 49th International Mathematical Olympiad, Spain. 2008