Camilo A. Cárdenas-Hurtado

CONTACT INFORMATION

Room: D8.00
Research Institute of Child Development & Education
University of Amsterdam

https://ccardehu.github.io/
c.a.cardenashurtado@uva.nl

RESEARCH INTERESTS

Statistical machine learning with latent variables, non-linear dimensionality reduction techniques, Psychometrics, IRT, CDM, SEM, distributional and semi-parametric regression, high-dimensional categorical data analysis, applications in educational testing, psychology, political science, economics, health sciences.

ACADEMIC APPOINTMENTS

University of Amsterdam (UvA), Amsterdam, NL.

RESEARCH INSTITUTE OF CHILD DEVELOPMENT & EDUCATION

Postdoctoral Researcher (Methods and Statistics) 2026/10–2029/01

London School of Economics and Political Science (LSE), London, UK.

DEPARTMENT OF STATISTICS

Visiting Fellow (by courtesy) 2026/10–2028/10
LSE Fellow 2023/09–2026/08

EDUCATION

London School of Economics and Political Science (LSE), London, UK.

PhD, STATISTICS (Social Statistics), 2023

- Thesis: *Generalised Latent Variable Models for Location, Scale, and Shape Parameters* (Supervisors: Prof. Irini Moustaki and Dr. Yunxiao Chen)

Universidad Nacional de Colombia (UNAL), Bogotá D.C., Colombia.

MSc, STATISTICS, 2017

Graduate Diploma (Specialization) STATISTICS, 2014

BA, ECONOMICS, 2011

PEER-REVIEWED PUBLICATIONS

Cárdenas-Hurtado, C. A., Lee, S.M., Chen, Y., Moustaki, I. (2026) A Generalized Additive Partial-Mastery Cognitive Diagnostic Model. *The Annals of Applied Statistics*, 20(3):2412–2432 (Link, `R` package: `gapmCDM`)

Cárdenas-Hurtado, C. A., Moustaki, I., Chen, Y., Marra, G. (2025) Generalized Latent Variable Models for Location, Shape, and Scale parameters. *Psychometrika*, 90(3):932–956 (Link, `R` package: `glvmlss`).

Cárdenas-Hurtado, C. A., Hernández, M. A., Torres, J. E. (2015), A Statistical Analysis of Heterogeneity on Labour Markets and Unemployment Rates in Colombia. *Revista Desarrollo y Sociedad*, 75(1):153–196, (Link)

PREPRINTS AND WORK IN PROGRESS

An L_p Rotation Criterion for Exploratory Bi-factor Analysis, with T.G Vasiljev, Y. Chen, and I. Moustaki (*In preparation*, `R` package: `bifacLpRot`)

Ordering consistency: Generating indexes using ordinal data for regression analysis, with C. F. Balcázar (*In preparation*)

Assessing DIF on Asymmetric Item Response Theory Models with Bounded Continuous Responses, with D. Molenaar (*In preparation*)

POLICY PAPERS

Cárdenas-Hurtado, C.A., Hernández, M. A. (2019), Understanding the Consumer Confidence Index in Colombia: A structural FAVAR analysis. *Policy paper series - Borradores de Economía*, No. 1063. (Link)

Cárdenas-Hurtado, C.A., Garavito-Acosta, A., Toro-Córdoba, J. (2018), Asymmetric Effects of Terms of Trade Shocks on Tradable and Non-tradable Investment Rates: The Colombian Case. *Policy paper series - Borradores de Economía*, No. 1043. (Link)

Velasco, A. M., **Cárdenas-Hurtado, C. A.** (2015), A Macro CGE Model for the Colombian Economy. *Policy paper series - Borradores de Economía*, No. 863. (Link)

ACADEMIC TALKS

2026: COMPS Seminar (invited talk, Institute of Computer Science, Czech Academy of Sciences, Prague, CZ); Department of Statistics' Research Showcase (LSE, contributed, London, UK); International Symposium on Nonparametric Statistics (ISNPS26, invited, Thessaloniki, GR); International Meeting of the Psychometric Society (IMPS26, contributed, Seoul, KR).

2025: Frontier Research in Educational Measurement (FREMO25, contributed, Oslo, NO); 15th Scientific Meeting of the Classification and Data Analysis Group (CLADAG25, invited speaker, Naples, IT).

2024: Brown-bag Statistics Seminar (online invited talk, Pennsylvania State University); International Meeting of the Psychometric Society (IMPS24, contributed, Prague, CZ).

2023: Social Statistics Seminar (LSE); Modern Modeling Methods (M3, contributed, CT, US); International Meeting of the Psychometric Society (IMPS23, contributed, MD, US).

2022: International Meeting of the Psychometric Society (IMPS22, contributed, travel award, Bologna, IT).

2021: Royal Statistical Society International Conference (RSS21, invited symposium, Manchester, UK).

TEACHING EXPERIENCE

University of Amsterdam (UvA)

- RESEARCH INSTITUTE OF CHILD DEVELOPMENT & EDUCATION
  General(ized) Linear Modeling (MRes)

London School of Economics and Political Science (LSE)

- DEPARTMENT OF STATISTICS
  ST102: Elementary Statistical Theory
  ST201: Statistical Models and Data Analysis
  ST205: Sample Surveys and Experiments
  ST211: Applied Regression
  ST309: Elementary Data Analytics (Lecturer)
  ST312: Applied Statistics Project
  ST405/MY455: Multivariate Methods
  ST416: Multilevel Modelling

SCHOLARSHIPS & AWARDS

Class Teacher Award (LSE): 2022, 2024–2026.

Psychometric Society Travel Award (Best student paper): 2022.

MPhil/PhD Scholarship (LSE): 2019–2023.

Academic Service

Psychometric Society

- Member of the Diversity, Equity and Inclusion (DEI) Committee (2025-2028).

Editorial work

- Reviewer for: Psychometrika (x1), British Journal of Mathematical and Statistical Psychology (x1), Journal of Multivariate Analysis (x1), Psychological Methods (x2), Statistical Papers (x1), Metrika (x1).

London School of Economics and Political Science (LSE)

- Academic Mentor, PhD representative, member of the Equity, Diversity and Inclusion Committee (EDI) and Departmental Teaching Committee (DTC), Mentor for MSc students.

Professional Experience

Banco de la República (Central Bank of Colombia), Bogotá, Colombia.
Macroeconomic Programming and Inflation Department.

Specialist Economist	2015/03–2019/07
Economist	2011/08–2015/02

Skills

Languages: Spanish (native), English (fluent), French (basic)

Programming: Advanced user: R, C++ (Rcpp)
Proficient in: Python, Stata, MATLAB
Working Knowledge: Julia, GAMS, SPSS, Mplus

References

Professor Irini Moustaki e-mail: i.moustaki@lse.ac.uk
Department of Statistics
London School of Economics and Political Science

Dr. Yunxiao Chen e-mail: y.chen186@lse.ac.uk
Department of Statistics
London School of Economics and Political Science

Professor Jouni Kuha e-mail: j.kuha@lse.ac.uk
Department of Statistics
London School of Economics and Political Science