

# Maria Kamran

MICROECONOMIST · MODELLING AND COMPUTATIONAL ANALYSIS EXPERT

✉ maria.kamran@graduateinstitute.ch | 🌐 <https://sites.google.com/view/maria-kamran>



I hold a doctorate in Economics (defending in September 2024) and have over four years of experience specializing in the analysis of large datasets using advanced computational techniques. I am interested in applying and adapting theoretical models to real-world data. My research interests are applied econometrics, game-theoretic modelling and experiments.

## Education

### PhD Development Economics

INSTITUT DE HAUTES ÉTUDES INTERNATIONALES ET DU DÉVELOPPEMENT

*Geneva, Switzerland*

2017 - 2024

### Master of Development Economics

THE UNIVERSITY OF QUEENSLAND

*Brisbane, Australia*

2010 - 2012

### Bachelor of Business Administration (Finance)

INSTITUTE OF BUSINESS ADMINISTRATION

*Karachi, Pakistan*

2005-2009

## Work Experience

### Research

#### Research Assistant

THE INTREPID PROJECT, INSTITUT DE HAUTES ÉTUDES INTERNATIONALES ET DU DÉVELOPPEMENT

*Geneva, Switzerland*

February 2019- January 2023

- Responsible for creation and initial analysis of the dataset for Natural Language Processing- BERT.

#### Research Associate

SCHOOL OF ECONOMICS, UNIVERSITY OF QUEENSLAND

*Brisbane, Australia*

2013-2014

- Associated with Australian Government grants on the impact of optimal emissions taxation, carbon markets, green technology and water rights on firms.
- Responsible for maintaining databases of (i) energy commodities and (ii) university rankings.
- Coordinated **laboratory experiments** concerning **auctions and signalling**.

### Teaching

#### Workshop Instructor

INSTITUT DE HAUTES ÉTUDES INTERNATIONALES ET DU DÉVELOPPEMENT

*Geneva, Switzerland*

April 2024 -May 2024

- Designed and implemented a doctoral workshop on Structural Estimation.

#### Research Mentor

SMITH COLLEGE

*Geneva, Switzerland*

February 2023 -Present

- Supervising undergraduate data science students' research practicum.

#### Teaching Assistant

INSTITUT DE HAUTES ÉTUDES INTERNATIONALES ET DU DÉVELOPPEMENT

*Geneva, Switzerland*

February 2023 -2024

- Supervising policy-relevant research by graduate student in collaboration with international organizations. Partner organizations include United Nations Human Settlements Programme, The Office of the High Commissioner for Human Rights, International Code of Conduct Association, Institute for State Effectiveness and Edgelands Institute.
- Teaching assistant for courses **Dynamic Stochastic General Equilibrium (DSGE) Models**, Introduction to Text Analysis and Introduction to Statistics.

#### Lecturer

THE INSTITUTE OF BUSINESS MANAGEMENT

*Karachi, Pakistan*

August 2015- July 2017

- Coordinated and taught Macroeconomics, Microeconomics, Statistics and policy courses.

### Business Experience

#### Consultant

INSTITUTE OF BUSINESS ADMINISTRATION

*Karachi, Pakistan*

2009

- In-charge of designing, implementing and analysing market surveys for commercial clients.
- Contributed to the statistical report concerning the impact of natural disasters on the export commodities of Pakistan for a report presented at the Sri Lankan Chamber of Commerce.

# Econometric Code

---

## MIMIC Model with Discrete Indicators

REPOSITORY

2024

- R script for implementing multiple-indicator, multiple-cause (MIMIC) modelling with discrete indicators with support for bootstrapping. Available at: [https://github.com/mariakamran86/MIMIC\\_Modeling\\_Discrete\\_Indicators\\_R](https://github.com/mariakamran86/MIMIC_Modeling_Discrete_Indicators_R)

## Research Papers

---

### A Touch of Violence - Welfare Outcomes under Bride Exchange and Child Brides

PHD DISSERTATION PAPER 1-JOB MARKET PAPER

2022

- IHEID Working Papers 12-2022, Economics Section, The Graduate Institute of International Studies. Link: <https://ideas.repec.org/p/gii/gihei/heidwp12-2022.html>
- Presented at Young Swiss Economists Meeting 2022, ETH Zurich; SSES Annual Congress 2022 University of Fribourg; International Association for Applied Econometrics 2022, King's College; Brown Bag Lunch IHEID 2022.

### The Economic Growth Dilemma- Navigating Population Policies and Emissions Permits

PHD DISSERTATION PAPER 2

2023

- Brown Bag Lunch, 2021, Geneva Graduate Institute, Switzerland.

### Hot Flashes- Theory and Empirics of Optimal Menopause

PHD DISSERTATION PAPER 3

2024

- Presented at Brown Bag Lunch IHEID 2022.

## Competencies

---

### Inequality and Intergenerational Mobility; Underlying Drivers and Policy Solutions

*Gerzensee, Switzerland*

STUDY CENTER GERZENSEE

2023

### Introduction to Geographical Information System Methods in Economics

*Geneva, Switzerland*

INSTITUT DE HAUTES ÉTUDES INTERNATIONALES ET DU DÉVELOPPEMENT

2021

### Economic Development: Modelling and Structural Estimation

*Geneva, Switzerland*

UNIVERSITÉ DE GENÈVE

2021

### Computational Methods for Economists: Text Analysis and Agent-Based Models

*Laussane, Switzerland*

THE ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE

2019

### Treatment Effects by Prof. Jeffrey Wooldridge (University of California, San Diego)

*Geneva, Switzerland*

UNIVERSITÉ DE GENÈVE

2018

## Expertise

---

**Languages:** - English (Native), French (B1), , Urdu (Native).

**Technical:** Rstudios (Machine Learning with TMLE-SL, BART and BERT), Python, STATA, SQL, Matlab, Mathematica, SPSS, Dynare.

## References

---

### Professor Ugo Panizza

Institut de hautes études internationales et du développement

Department of International Economics

Email: [ugo.panizza@graduateinstitute.ch](mailto:ugo.panizza@graduateinstitute.ch)

### Professor Jean-Louis Arcand, President

The Global Development Network

Email: [jlarcand@gdn.int](mailto:jlarcand@gdn.int)

### Professor David Sylvan

Institut de hautes études internationales et du développement

Department of International Relations and Political Science

Email: [david.sylvan@graduateinstitute.ch](mailto:david.sylvan@graduateinstitute.ch)