### Personal Information

Names/Surnames | Gery Andrés Díaz Rubio

Office Piazzetta Teatini, 10, Rimini 47921, Italy

E-mail geryandre.diazrubio2@unibo.it

Website www.unibo.it/sitoweb/geryandre.diazrubio2

Nationality Peruvian

## Current positions

Date | Tbd

**Institution** Department of Economics and Management, Free University of Bozen-Bolzano

Role Adjunct Professor

Course Econometrics (BSc Economics, Politics and Ethics)

**Date** 2022/07-Present

Institution Department of Statistical Sciences "Paolo Fortunati", University of Bologna

Role Adjunct Professor

Course | Analisi delle Serie Storiche per la Finanza e le Assicurazioni (L. Statistica,

Finanza e Assicurazione)

**Date** | 2023/01-Present

Institution Department of Statistical Sciences "Paolo Fortunati", University of Bologna

Role Research Fellow

Project Dynamic panel data modelling of the Italian football league statistics

Supervisors | Prof. M. Castellani, Prof. S. Giannerini (University of Udine)

Co-supervisor | Dr. F. Angelini

External advisor | Dr. G. Goracci (Free University of Bozen-Bolzano)

Date2024/09-PresentInstitutionUniversity of Bologna

Role Teaching Assistant

Subjects | · Stochastic Processes (Prof. A. Lanconelli, MSc Statistical, Financial and

Actuarial Sciences, Dept. Statistical Sciences "Paolo Fortunati")

· Introductory Statistics (Prof. M. Chiogna, BSc Genomics, Dept. Pharmacy

and Biotechnology)

# Past positions

**Date** 2014–2024/08

Institution Departments of Economics (DSE), Political and Social Sciences (DSPS), Statistical Sciences (DSS), and Pharmacy and Biotechnology (DPB), University of

Bologna

Role Teaching Assistant & Instructor

Subjects · Stochastic Processes (Prof. S. Giannerini, MSc Statistical, Financial and Actuarial Sciences, DSS 2021/2024)

· Introductory Statistics (Prof. S. Giannerini, BSc Genomics, DPB 2021/2024)

· Econometrics crash course (Prof. L. Fanelli, MSc Statistical, Financial, and Actuarial Sciences, DSS 2022/2024)

 $\cdot$  Probability I (Prof. A. Lanconelli, BSc Statistical Sciences (Stats&Maths), DSS 2020/2023)

· Probability II (Prof. A. Lanconelli, BSc Statistical Sciences (Stats&Maths), DSS 2020/2023)

· Probability (Prof. A. Lanconelli, MSc Statistics, Economics and Business, DSS 2020/2023)

 $\cdot$  Political Economy (Prof. R. Bottazzi, BSc Statistical Sciences, DSS 2021/2022)

 $\cdot$  Metodi Statistici per i Mercati Finanziari (Prof. S. Giannerini, L. Finanza, Assicurazione e Impresa DSS 2021/2022)

- · Economics (Prof. R. Bottazzi, BSc Statistical Sciences, DSS 2020/2022)
- · Statistical Models for Market Research (Prof. M. Freo, MSc Statistics, Economics and Business, DSS 2018/2020)
- · Statistics (Prof. M. Ventrucci, BSc Tourism Economics, DSE 2019)
- $\cdot$  Advanced Micro Econometrics (Prof. R. Golinelli, MSc Economics and Economic Policy, DSE 2017/2018)
- $\cdot$  Statistics (Prof. M. Brizzi, MSc Quantitative Finance, DSS 2017/2018, 2019/2020)
- $\cdot$  Financial Markets and Institutions (Dr. F. Palmucci, BSc Business and Economics, DSE 2017)
- $\cdot$  Macroeconomics (Prof. A. Soci, BSc Political, Social and International Sciences, DSPS 2016/2017)
- $\cdot$  Data Mining and Business Decisions (Prof. M. Freo, MSc Corporate Management, DSE 2015/2017)
- · Econometrics 3 (Prof. C. Monfardini, MSc/PhD Economics, DSE 2015/2016)
- · Econometrics 1 (Prof. C. Monfardini, MSc Economics, DSE 2015/2016)
- $\cdot$  Advanced Macro Econometrics (Prof. R. Golinelli, MSc Economics and Economic Policy, DSE 2014)

Date Institution Role 2017

Ocem Energy Technology (Arethè & Cocchi Technology), Bologna

Controller

Responsible

Ludmilla Raphet (Group Controller)

Details

- · Analysis and reorganization of financial data of Ocem Airfield Technology and Ocem Power Electronics
- · Support the redefinition project of both business and industrial processes
- · Support the alignment of both processes and information system (ERP)
- · Daily controlling functions and data analysis

**Date** 2013–2015

Institution | Library of Agricultural Sciences & Amilcar Cabral Library, Bologna

Role Collaborator

**Responsible** Dr. Francesco Casadei and Dr. Elena Tripodi

**Date** | 2011–2018

**Institution** GDR Tutoring, Bologna

Role Teaching and Research Assistant

Details | Tutorials and crash courses in R, Stata, Gretl, Eviews, Matlab, Minitab,

Python, Julia

- · Consultancy for data management, analysis, modelling and forecasting
  - · Support graduate, undergraduate students, professionals and researchers

worldwide in quantitative subjects and technical projects

# Education and Training

**Date** | 2022/10

Degree PhD Statistical Sciences (with grant)

Institution University of Bologna, Italy

Advisor | Prof. Simone Giannerini

Co-advisor | Dr. Greta Goracci (University of Bozen-Bolzano)

Sector | 13/D1 Statistica. SSD: SECS-S/01

Ph.D. thesis title | "Model selection and the vectorial Misspecification-Resistant Information Crite-

rion in multivariate time series"

**Summary** Extension of the MRIC [Hsu, Ing, Tong (2019), Ann. Statist.] to parametric covariance-stationary multivariate time series models; Two surveys on model selection criteria for i.i.d. data and for parametric, nonparametric, and multi-

variate time series.

Reviewers | Prof. Davide Ferrari (University of Bozen-Bolzano), Prof. Pietro Coretto

(University of Salerno)

PhD Board | Prof. Tommaso Proietti (Tor Vergata University), Prof. Mikkel Bennedsen

(University of Aarhus, Denmark), Prof. Paolo Guasoni (University of Bologna)

**Date** | 2016/10

Degree MSc Economics & Economic Policy (with grant)

**Institution** University of Bologna, Italy

Advisor Prof. Roberto Scazzieri Examiner Prof. Roberto Golinelli

Field | Economic Analysis, Macro Econometrics

**Dissertation title** "Dual Structures: Two Models for the Peruvian Economy"

Grade | 110/110 GPA | 28.6 CFU | 138/120

 Date
 2012/07

 Degree
 BSc Economics

**Institution** University of Florence, Italy

Advisor | Prof. Gabriele Fiorentini Field | Financial Econometrics

Dissertation title | "The standard CAPM and the GARCH(1,1) model in the Peruvian Stock

Market" (in Italian)

Major | Financial Markets and Risk Management

Degree Scientific Lyceum

Institution | Antonio Raimondi School, Lima (Peru)

**Grade** | 100/100

#### Additional courses

**Date:** | 2023/04/1-3

Institution: Bolzano-Waseda Workshop, Statistics & Time Series Analysis

**Keynote Speakers:** Prof. Masanobu Taniguchi (Waseda University), Prof. Howell Tong (LSE,

Tsinhua University), Prof. Yao Qiwei (LSE).

**Date:** | 2022/02/01-03

Institution: School on Computational Statistics and Data Science, IASC-LARS-ISI

Course: "Time Series Robust Methods: Time and Frequency Domains"

Instructors: Prof. Valdério Anselmo Reisen (PPGEA, PPGEco, PPGMAT-UFES, Brazil

and CentraleSupeléc-ParisSaclay, France).

**Date:** | 2021/11/22-24

Institution: School on Computational Statistics and Data Science, IASC-LARS-ISI

Course: "Data Visualization, Theory and Applications"

Instructors: Prof. Natalia da Silva (Universidad de la República, Uruguay).

**Date:** | 2021/09/27-30

Institution: School on Computational Statistics and Data Science, IASC-LARS-ISI

Course: "Machine Learning for Data Science"

Instructors: Prof. Rodrigo Salas Fuentes, Ayleen Bertini, Prof. Javier L. López Gonzales,

Prof. Marvin Querales (Universidad de Valparaiso, Chile).

**Date:** | 2021/04/17-18

Institution: School on Computational Statistics and Data Science, IASC-LARS-ISI

Course: "Stochastic Simulation and Reinforcement Learning"

Instructors: Prof. L. Enrique Sucar, Prof. Eduardo Morales (Instituto Nacional de As-

trofísica, Óptica y Electrónica), Prof. David Muñoz-Negrón (Instituto Tec-

nológico Autónomo de México).

**Date:** | 2021/02/23-25

Institution: School on Computational Statistics and Data Science, IASC-LARS-ISI

Course: "Geostatistical Functional Data Analysis"

Instructors: Prof. Martha Bohorquez, Prof. Ruben Guevara, Juan Guevara (Universidad

Nacional de Colombia).

**Date:** | 2020/11/23-26

Institution: School on Computational Statistics and Data Science, IASC-LARS-ISI

Course: "Statistical Inference in Markov Processes"

Instructors: Prof. Verónica González-López, Prof. Jesús E. García (University of Campinas).

**Date:** | 2020/08/24-28

Institution: Bernoulli & IMS One World Symposium

**Details:** Virtual one-week symposium on Probability and Mathematical Statistics.

Keynote Speakers: Prof. Emmanuel Candes (Stanford University), Prof. Martin Hairer (Univer-

sity of London), Prof. Kerrie Mengersen (University of Brisbane), and Prof.

Wendelin Werner (ETH Zurich).

**Date:** | 2020/01/23-24

Institution: Ca' Foscari University

Course: Time Series Models: Theory and Applications

**Details:** 2nd Italian Workshop of Econometrics and Empirical Economics.

**Keynote Speakers:** | Prof. Sylvia Frühwirth-Schnatter (Wirtschaftsuniversität Wien) and Prof.

Oliver Linton (University of Cambridge).

**Date:** | 2019/06/17-22

Institution: Italian Econometric Society and CRUB

Course: Principles, Ideas and Theory in Econometric T.S.

Details: Italian Econometric Society (SIdE) Summer School.

**Keynote Speakers:** | Prof. Søren Johansen and Prof. Anders Rahbek (University of Copenhagen).

# Working Papers and Technical Reports

WP1 Angelini, F.; Castellani, M.; Diaz Rubio, G.A.; Giannerini, S.; Goracci, G.; Decoding the Game: An Empirical Analysis of the Strategic and Tactical Role of Coaches in the Serie A, Submitted, 2024

WP2 | Visentin, M.; Tuan, A.; Giannerini, S.; Diaz Rubio, G.A.; Between Flow and Satiation: The Temporal Impact of Emotions in Online Video Gamers' Reviews on Daily Active Players, Submitted, 2024

WP3 | Diaz Rubio, G.A.; Giannerini, S.; Goracci, G.; The Vectorial Misspecification-Resistant Information Criterion, https://arxiv.org/abs/2211.08205, 2022

WP4 | Diaz Rubio, G.A.; Model Selection via Information and Prediction Criteria: A Survey, 2022

TR1 Castellani, M.; Diaz Rubio, G.A.; Giannerini, S.; Goracci, G.; Robust model selection with generalized linear models in the Serie A league, 2025

TR2 Diaz Rubio, G.A.; The Institution of Systemic Corruption in Peru. JEL codes: D73, B52, O54. Research proposal selected by the PhD School of Legal and Economic Sciences, University of Verona - BPM Scholarship, 2017

TR3 | Diaz Rubio, G.A.; A Structured – VAR Approach for the Monetary Transmission Mechanism in Peru. JEL codes: C32, C36, C5, E52, 2017

TR4 Diaz Rubio, G.A.; Economic and Social Co-ordination in Peru from an Institutional and Game-Theoretical Perspective. JEL codes: O54, B52, O17, P48, 2017

## Publications in Conference Proceedings

CP1 Diaz Rubio, G.A.; Giannerini, S.; Goracci, G.; On the asymptotic mean-squared prediction error for multivariate time series, in: Proceedings of the 50th scientific meeting of the Italian Statistical Society, 2021, (Pisa, June 21–25, 2021) pp. 1-6. ISBN: 9788891927361

#### Presentations at Conferences

- C1 Diaz Rubio, G.A.; Angelini, F.; Castellani, M.; Giannerini, S.; Goracci, G.; On Home Advantage with In-Game Variables from Commentary Data in the Italian Serie A, EAI Intetain 2023. IMT School for Advanced Studies Lucca, 2023
- C2 Diaz Rubio, G.A.; Giannerini, S.; Goracci, G.; A Multivariate Extension of the Misspecification Resistant Information Criterion, 3rd Italian Workshop of Econometrics and Empirical Economics: "High-Dimensional and Multivariate Econometrics: Theory and Practice" (IWEEE 2022). Organized by the Italian Econometric Society (SIdE), Rimini Campus, University of Bologna, January 20-21, 2022
- C3 Diaz Rubio, G.A.; Giannerini, S.; Goracci, G.; On the asymptotic mean-squared prediction error for multivariate time series, 50th scientific meeting of the Italian Statistical Society, Pisa, June 21-25, 2021

#### Seminar Presentations

- S1 Diaz Rubio, G.A.; The Vectorial Misspecification-Resistant Information Criterion and Model Selection with Multivariate Time Series, Department of Statistical Sciences, University of Bologna, December 9, 2021
- S2 | Diaz Rubio, G.A.; Misspecification-Resistant Information Criterion for Multivariate Time Series, Department of Statistical Sciences, University of Bologna, February 4, 2021
- S3 Diaz Rubio, G.A.; Model Selection with Nonparametric Methods for Nonlinear Time Series, Department of Economics, Universidad Nacional de Cuyo, Mendoza (Argentina), September 25, 2019

#### Other Presentations at Conferences

- Giannerini, S.; Diaz Rubio, G.A.; Goracci, G.; Consistent and efficient model selection with possible misspecification for vector time series, Complex time series analysis: high-dimensionality, change-point, forecasting and causality, TSIMF, Sanya, China, January 3-7, 2024
- · Giannerini, S.; Diaz Rubio, G.A.; Goracci, G.; Consistent and efficient model selection with possible misspecification for vector time series, 4th Italian Workshop of Econometrics and Empirical Economics: "Climate and Energy Econometrics", Free University of Bolzano, January 25-26, 2024

· Giannerini, S.; Diaz Rubio, G.A.; Goracci, G.; Consistent and efficient model selection with possible misspecification for vector time series, 2nd Bergamo Workshop in Econometrics and Statistics, University of Bergamo, September 7-8, 2023

Giannerini, S.; Diaz Rubio, G.A.; Goracci, G.; The Multivariate Misspecification-Resistant Information Criterion, Waseda-Bolzano workshop on Statistics and time series analysis, Selva di val Gardena, April 1-3, 2023

#### Dissemination

- Diaz Rubio, G.A.; Economic Crises: Structural Conditions and Institutional Mechanisms, With Prof. Scazzieri, R. (University of Bologna, Accademia Nazionale dei Lincei). Seminar cycle: "Fare rizoma. Profili ecologici della razionalità contemporanea", Department of Philosophy and Communication, University of Bologna, April 5, 2019
- Diaz Rubio, G.A.; An Introduction to Game Theory: Conflicts and Institutions, Seminars: "La Macchina da Guerra". Department of Philosophy and Communication, University of Bologna, February 24, 2017
- Diaz Rubio, G.A.; The 'Economic Miracle' of Fujimori's Administration (1990-2000), Zonarelli centre, Bologna, July 2016

#### Thesis Work

Year: | 2016

Title: Dual Structures: Two Models for the Peruvian Economy

Degree: MSc in Economics and Economic Policy

**Institution:** Department of Economics, University of Bologna

Details: Political economy analysis of Peru (1980-2016); construction of an institu-

tional model; and study of a structured VAR model for the monetary policy

transmission mechanism using Eviews.

Year: | 201

Title: THE STANDARD CAPM AND THE GARCH(1,1) MODEL IN THE PERUVIAN

STOCK MARKET

Degree: BSc in Economics

**Institution:** Department of Economics, University of Florence

Details: Empirical analysis of the CAPM using 29 firms listed on the Lima Stock Exchange during the period 2006-2012; estimation of a GARCH (1,1) model on the IGBVL (Bolsa de Valores de Lima General Sector Index), using Eviews.

Original title: Analisi Econometrica del CAPM nel mercato azionario peruviano.

# Memberships

· Italian Econometric Society from 2019

· International Association for Statistical Computing (International Statistical Institute) from 2019

Bernoulli Society from 2020

· Institute of Mathematical Statistics from 2021

· Italian Statistical Society from 2021

# **Scholarships**

- · University of Bologna, PhD Statistical Sciences, 2018–2022
- · University of Bologna, MSc Economics and Economic Policy, 2012–2015

#### Service as referee

· | Structural Change and Economic Dynamics (2018)

## Personal Skills and Competencies

First language: Other languages: Spanish

Self-assessment according to the European framework:

	Listening	Reading	Spoken Interac- tion	Spoken Produc- tion	Writing
Italian	C1	C1	C1	C1	C1
English	C1	C1	C1	C1	C1

<sup>(\*)</sup> Common European Framework of Reference (CEF) level

Software:

R, Eviews, Stata, Gretl, Matlab, Mathematica, Python, Julia, SAS, Prism

Others:

MS Office, LATEX (TeXstudio, LyX, Overleaf), ERP (SAM 4.2), MS Dynamics CRM, WordPress, Type 80 wpm, Windows OS

# Seminars, Conferences & Workshops (participant)

Institution: Details:

Department of Statistical Sciences, University of Bologna Statistical Sciences Department seminars cycle (2022/2023, 2023/2024)  $\cdot$  "Greening Energy Market and Finance" (2020/11/17)  $\cdot$  "International Migration data: advances and challenges" (2020/02/13)  $\cdot$  "Topics on conditional moment equation models: goodness-of-fit and missing data" (2020/01/20-21)  $\cdot$  PhD Statistical Sciences seminars cycle (2018/2022)  $\cdot$  StaTalk  $\cdot$  Young Italian Statistical Society Meeting (2019/03/29)  $\cdot$  Big Data for Multi-Agent Specialized System (2019/03/28)

Institution: Details:

Institute of Advanced Studies, University of Bologna

"Ruins Past and Future: Four Ways of Looking at History" (2022/09/06) "Mathematics that counts" (2021/03/23) "Extreme events: how to describe and predict them using mathematical theories" (2021/01/19) "Data in public communications, history, impact, and key lessons for scientists and policy-makers" (2020/12/01) "Organisational Learning and Adaptation to Address Complex Societal Challenges" (2020/11/17) "Rigour and aesthetics: Japanese traditional mathematics" (2019/11/19) "Using geometry to move robots quickly" (2019/10/29) "Social Media Research after the Fake News Debacle" (2019/10/22) "Stakeholder monitoring in banking" (2019/10/21) "Why the Trump era will last thirty years" (2019/04/16) "Work-Life Leadership: Managing Self and Others for Well-being On and Off the Job" (2019/03/05) "Dante and the Foundations of Argentine National Identity: Literature, Politics, and the Dream of a New Nation" (2019/02/12) "Bringing new medicines to market sooner? The statistical and economic challenges of value-based clinical trial design" (2019/11/27)

Institution: Accademia Nazionale dei Lincei, Rome

**Details:** International Conference "Rethinking Political Economy" (2019/04/10) · Work-

shop "Structures and Transformations: an Interdisciplinary Matrix for Political

Economy" (2017/10/26-27)

Institution: Department of Political and Social Sciences, University of Bologna

**Details:** "Economic Geography of the Colombian Political Conflict" (2019/07/03)

Institution: Bank of Italy, Bologna

**Details:** "Statistics for Economic Analysis" (2019/02/21) · "Monetary Policy and the

Stability of the Value of Money" (2019/01/24)

Institution: Others

**Details:** "How to write a scientific paper" - VPH Institute (2021/06/11) · "Live Showcase:

Wolfram Technologies for Calculus, Algebra, Statistics and other Maths-Related Subjects" - Wolfram (2020/11/30) · "Two days on CalcVar & PDEs" - Department of Mathematics UNIBO (2019/11/28-29) · "The Mediterranean and the demographic fault" - Accademia delle Scienze (2019/05/16) · "Critical Economics Summit" - INET and University of Bologna (2017/05/05-07) · International Conference "Globalization, Human Capital, Regional Growth, and the 4th Industrial Revolution" - Emilia-Romagna Region (2017/10/20) · "Chinese culture and language" and "Asian Economy" - PUCP (Peru) (2006/03-06)

#### Research Interests

 $Time\ Series \cdot Econometric\ Theory \cdot Model\ Selection \cdot Sport\ Statistics\ \ \ \ Economics \cdot \ Dynamic\ Panel\ Data\ Models$ 

#### References

Name: Professor Simone Giannerini

**Institution:** Dept. of Economics and Statistics, University of Udine

Email: simone.giannerini@uniud.it

Name: Assistant Professor Greta Goracci

Institution: Faculty of Economics and Management, Free University of Bozen-Bolzano

Email: greta.goracci@unibz.it

Name: Professor Massimiliano Castellani

**Institution:** Dept. of Statistics, University of Bologna

Phone: (+39 0541 434315) Email: m.castellani@unibo.it

Name: Gery A. Díaz Rubio, Ph.D.

**Date:** January 16, 2025

(ENG) In compliance with the GDPR and Italian Legislative Decree no. 196 dated 30/06/2003, I hereby authorize the recipient of this document to use and process my personal details for the purpose of recruiting and selecting staff and I confirm to be informed of my rights in accordance to art. 7 of the above mentioned Decree.

(ITA) Il presente curriculum viene reso ai sensi e per gli effetti degli articoli 46 e 47 del d.P.R. n. 445/2000. Si autorizza il trattamento dei dati personali ivi contenuti limitatamente alla procedura in oggetto.