Giorgio Triulzi

Curriculum Vitae

October 8, 2026



Associate Professor (with tenure)
Universidad de los Andes, School of Management
Email: g.triulzi@uniandes.edu.co
Personal website: giorgio-triulzi.com
Google Scholar: here; LinkedIn: here
Birth date: November 13, 1984

EDUCATION

PhD in Economics and Policy Studies of Technical Change
UNU-MERIT and Maastricht University, Maastricht, Netherlands
2015

MSc. in Economics of International Markets and New Technologies (full grade cum laude)
Bocconi University, Milan, Italy
2009

Bachelor in Economics of International Markets and New Technologies
Bocconi University, Milan, Italy
2006

PROFESSIONAL APPOINTMENTS

Director of Research
Universidad de los Andes, School of Management
July 2024- to July 2026

Director PhD Program in Management and Research Master in Management
Universidad de los Andes, School of Management
July 2022- to July 2024

Associate Professor (with tenure)
Universidad de los Andes, School of Management
March 2022- to date

Assistant Professor
Universidad de los Andes, School of Management
2018- 2021

Postdoctoral Associate
Massachusetts Institute of Technology, Institute for Data, Systems and Society
2016-2017

Postdoctoral Researcher
Singapore University of Technology and Design
2015

EXTERNAL BOARD MEMBERSHIP

Member of the Innovation Strategic Committee of Compensar, a major Colombian welfare organization (*Caja de Compensación Familiar*) based in Bogotá
January 2026 – to date

CONSULTANCIES AND OTHER RELEVANT PROFESSIONAL EXPERIENCIES

Part of the Universidad de los Andes team that consulted Ecopetrol (largest Colombian firm) in 2020-2021 to assist the company in defining their new Science, Technology and Innovation Strategy.

Part of the team that performed contract research for Draper Laboratories to support their technology investments strategic planning while being a postdoc at MIT IDSS in 2016-2017.

External consultant between 2020 and 2021 for the Inter-American Development Bank for a project to study the effectiveness of Latin-American coding bootcamps.

Instructor, since 2022, in the PROCEME and PEMP programs of the Entrepreneurship Center of Universidad de los Andes School of Management, where I teach sessions on effective business idea validation.

My research has contributed part of the technology-base for the foundation of a startup, TechNext, in Richmond, Massachusetts, that helps organizations understand and predict the direction and speed of technology development and incorporate this information in their investment management process.

TEACHING EXPERIENCE

Universidad de los Andes, School of Management

Master in Technological Innovation Management:
- Strategic Management of Technological Innovation (for 7 semesters from 2020 to date)

MSc and PhD in Management:
- Business, Technology, Innovation, and Diffusion (for 3 semesters between 2018 and 2020)

Undergraduate in Management:

- Strategic Management of Technological Innovation (for 11 semesters from 2018 to date)
- Entrepreneurship and Innovation (for 13 semesters from 2020 to date)

Singapore University of Technology and Design
Introduction to Applied Statistics (graduate level)
July – October 2015

School of Business and Economics, Maastricht University
September 2010 – August 2014

- Innovation in Economics and Business
- Microeconomics
- Principle of Economics
- International Economics
- Banking
- Development Economics

PUBLICATIONS

*Legend: *** single lead author with main contribution; **lead or co-lead author with equal contributions; *no lead author but significant contribution; no stars = secondary role*

Work in progress (pipeline)

** Patent-based Signals of Complex Product Architecture: Evidence from Two Design Structure Matrices and Implications for Expert Review. With Guillermo Ruiz-Pava and Chris Magee. *Paper status: Submitted*

** R&D and Technology Acquisition as Dual Drivers of Heterogeneity in Firm Efficiency: A Multilevel Sales Elasticity Analysis of Manufacturing Industries. With Andrés Duran and Clemente Forero. *Paper status: Pre-submission revisions. Expected submission: January 2027*

** The Changing Global Technological Frontier: A Patent-based Historical Account of Changes in the Frontier of Technological Progress Over the Last 70 Years. With Anuraag Singh and Chris Magee. *Paper status: Advanced stage of data analysis. Expected submission: January 2027*

** Catching Up at the Technological Frontier: Frontier Knowledge Regimes, Frontier Permeability, and Country Capabilities. With Alessandro Rosiello and Franco Malerba. *Paper status: Advanced stage of data analysis. Expected submission: April 2027*

** Disentangling the Sources of Variation in R&D Returns Across Firms. With Andrés Duran and Clemente Forero. *Paper status: Advanced stage of data analysis. Expected submission: April 2027*

** The Role of Project-level Uncertainty in the Entrepreneurs-as-Scientists Approach. *Paper status: RCT completed. Stage of data analysis*

** The Relationship Between the Pace of Technological Improvements and the Returns to R&D. *Paper status: Stage of data analysis*

** Bayesian Entrepreneurship at Scale: Evaluating a Theory-Based Agentic AI System for New Venture Development in Emerging Economies. With Ana Ozuna. *Paper status: Experiment Design*

Refereed journal articles

2022, Park, I., **Triulzi, G.***, Magee, C. L. Tracing the emergence of new technology: a comparative analysis of five technological domains. *Technological Forecasting and Social Change*, 184, 122014.

2021, Singh, A., **Triulzi, G.****, & Magee, C. L. Technological improvement rate predictions for all technologies: Use of patent data and an extended domain description. *Research Policy*, 50(9), 104294.

2020, **Triulzi, G.*****, Alstott, J., & Magee, C. L. Estimating technology performance improvement rates by mining patent data. *Technological Forecasting and Social Change*, 158, 120100..

2020, **Triulzi, G.*****, & Magee, C. L. Functional performance improvement data and patent sets for 30 technology domains with measurements of patent centrality and estimations of the improvement rate. *Data in Brief*, 32, 106257.

2019, Sharifzadeh, M., **Triulzi, G.****, & Magee, C. L. Quantification of technological progress in greenhouse gas (GHG) capture and mitigation using patent data. *Energy & Environmental Science*, 12(9), 2789-2805.

2019, Song, B., Yan, B., **Triulzi, G.**, Alstott, J., & Luo, J. Overlay technology space map for analyzing design knowledge base of a technology domain: the case of hybrid electric vehicles. *Research in Engineering Design*, 30(3), 405-423.

2018, Luo, J., & **Triulzi, G.*** Cyclic dependence, vertical integration, and innovation: The case of Japanese electronics sector in the 1990s. *Technological Forecasting and Social Change*, 132, 46-55.

2018, Benson, C. L., **Triulzi, G.****, & Magee, C. L. Is there a Moore's law for 3D printing?. *3D Printing and Additive Manufacturing*, 5(1), 53-62.

2017, Alstott, J., **Triulzi, G.****, Yan, B., & Luo, J. Inventors' explorations across technology domains. *Design Science*, 3.

2017, Alstott, J., **Triulzi, G.****, Yan, B., & Luo, J. Mapping technology space by normalizing patent networks. *Scientometrics*, 110(1), 443-479.

2014, **Triulzi, G.*****, Pyka, A., & Scholz, R. R&D and knowledge dynamics in university-industry relationships in biotech and pharmaceuticals: an agent-based model. *International Journal of Biotechnology*, 6, 13(1-3), 137-179.

2012, Bhupatiraju, S., Nomaler, Ö., **Triulzi, G.***, & Verspagen, B. Knowledge flows–Analyzing the core literature of innovation, entrepreneurship and science and technology studies. *Research Policy*, 41(7), 1205-1218.

2011, **Triulzi, G.*****, & Pyka, A. Learning-by-modeling: Insights from an agent-based model of university–industry relationships. *Cybernetics and Systems*, 42(7), 484-501.

Book chapters

2023, Triulzi,G***. Innovación y cadenas de valor (Innovation and value chains), in "Gestión de la cadena de abastecimiento: eslabones, herramientas y tendencias", edited by Nubia Velasco, Sebastián Villa, Sonia Camacho (ISBN: 978-958-798-379-1, DOI: http://dx.doi.org/10.51565/2022.02), pp. 117-143, Ediciones Uniandes.

2019, Hu, M., **Triulzi, G.***, Sharifzadeh, M. Technological change in fuel cell technologies, in "Design and Operation of Solid Oxide Fuel Cells", edited by Mahdi Sharifzadeh (ISBN 978-0-12-815253-9), pp. 3-41, Elsevier.

Other publications

Triulzi, G.*** How Effective are Latin American Coding Bootcamps as a Mean to Obtain an In-Field Job? Study commissioned by the Inter-American Development Bank.

AWARDS

Best poster award
2015 Conference on Complex Systems
Tempe, AZ, US, October 2015

Best symposium paper award
International Symposium on Agent-Based Modeling
University of Vienna, Austria, May 2010

Outstanding PhD paper award
European Meeting on Applied Evolutionary Economics
Max Planck Institute of Evolutionary Economics, Jena, Germany, May 2009

GRANTS

Fondo semilla del Comité de Investigación de la Facultad de Administración de la Universidad de los Andes
2021, equivalent to 7.800 USD

Fondo semilla de la Oficina de Proyectos de la Facultad de Administración de la Universidad de los Andes
2021, equivalent to 17.000 USD

Universidad de los Andes Vice-Presidency for Research Postdoctoral funding
2019-2022, equivalent to 65.000 USD

MIT International Science and Technology Initiatives (MISTI)
Project title: "Studying the Evolution of the Backbone of Technology Development"
2019-2021, 25.000 USD

Fondo de Apoyo para Profesores Asistentes (FAPA) – Universidad de los Andes
Project title: "Systematic empirical analysis of the rate and direction of technological change to identify potential high-growth and diversification pathways"
2019-2022, equivalent to 32.000 USD

INVITED TALKS

2022, Inter-American Development Bank, Competitiveness, Technology and Innovation Division, Brown Lunch Seminar Series. "Latin American Coding Bootcamps and In-field Employment: Analysis based on LinkedIn profiles of 1,000 alumni". April 27, 2022.

2022, Inter-American Development Bank, Competitiveness, Technology and Innovation Division, Brown Lunch Seminar Series. "Technological Improvement Rate Predictions for all Technologies". March 16, 2022.

2019, Workshop "Tracking innovation trajectories in the complex economy". Organizer: Universidad de Turin y Institute for New Economic Thinking. October 7-9, 2019.

2019, XII Conference on Frontier Research in Applied Economics
Organizer: Research Group on Economic Modeling and Quantitative Methods, Universidad Nacional de Colombia, Department of Economics, Bogotá, Colombia. March 11, 2019

2018, Workshop on Innovation, Industrial Dynamics and Industrial Policy
Organizer: Universidad Jorge Tadeo Lozano, Department of Economics, Bogotá, Colombia. October 12, 2018

2017, Workshop on Economics of Innovation, Complexity and Knowledge
Organizer: Collegio Carlo Alberto, Turin, Italy. December 19, 2017

2017, Workshop "Collective Learning and Economic Geography"
Organizer: Cesar Hidalgo, MIT-Media Lab, Cambridge, US. March 22, 2017

CONFERENCE PARTICIPATION

2026, International Joseph A. Schumpeter Society Conference, Strasbourg, France

2025, 9th Annual Conference of the IADB Latin-American Network on Innovation and Entrepreneurship - Red de Innovación y Emprendimiento en América Latina (RIE), Campinas, Brazil

2024, International Joseph A. Schumpeter Society Conference, Gothenburg, Sweden

2023, DRUID Society Conference, NOVA Business School, Lisbon

2021, International Joseph A. Schumpeter Society Conference, Rome, Italy

2019, European Meeting on Applied Evolutionary Economics, SPRU, University of Sussex

2018, DRUID Society Conference, Copenhagen Business School

2016, Micro Evidences on Innovation and Development Conference, Higher School of Economics, Moscow, Russia

2016, Global Tech-Mining Conference, Universidad Politécnica de Valencia, Spain

2016, International Joseph A. Schumpeter Society Conference, Montreal

2015, Conference on Complex Systems, Arizona State University

2015, International Asia-Pacific Innovation Conference, Zhejiang University of Science and Technology, Hangzhou, China

2015, European Meeting on Applied Evolutionary Economics, Maastricht University and UNU-MERIT, the Netherlands

2014, International Joseph A. Schumpeter Society Conference, Friedrich Schiller University, Jena, Germany

2014, New England Complex Systems Institute Summer Course in Complexity, Cambridge, MA

2013, International Asia-Pacific Innovation Conference, Taiwan National University

2013, European Meeting on Applied Evolutionary Economics, SKEMA Business School, Nice, France

2013, SUNBELT Social Networks Conference of the International Network for Social Network Analysis

2011, Globelics Conference, Buenos Aires, Argentina
2011, Dynamics of Institutions and Markets in Europe Conference, UNU-MERIT, Maastricht, the Netherlands

2010, Advances in Agent-Based Computational Economics, University of Bielefeld, Germany

2010, International Symposium on Agent-Based Modeling, University of Vienna, Austria

2009, Conference of the Annual European Association for Evolutionary Political Economy, University of Amsterdam, the Netherlands

2009, European Meeting on Applied Evolutionary Economics, Max Planck Institute for Evolutionary Economics, Jena, Germany

CAMPUS TALKS

2025, "The Evolution of Global Technological Trajectories", Seminario de investigación del Área de Gestión y Póliticas Públicas, 4-11-2025

2021, "The Pace of Technological Innovation and Value Creation", Seminario del Grupo de Investigación en Gestión Publica, 12-10-2021

2019, "Technological trajectories. What they are, why we should measure them, how to do it and why managers, economists, policy makers, university deans and chancellors should care", INTERACT group meeting – 30 January 2019

MEDIA COVERAGE OF MY RESEARCH

- The Wall Street Journal, "New Research Busts Popular Myths About Innovation", Sept. 18, 2021
- Financial Times, "Innovation still requires smart, even barmy, innovators", Sept. 2021
- Fast Company, "MIT built a Google search to spot the most important tech innovations of the future", Oct. 10, 2021
- TNW, "MIT researchers use AI to predict the next big things in tech", Aug. 4, 2021
- The Economic Times of India, "New AI tool by MIT predicts how fast any technology is improving", Oct. 29, 2021
- Agendadigitale.eu, "L'algoritmo che svela la velocità di cambiamento delle tecnologie: come funziona e a cosa serve", Nov. 2, 2021
- Atlantico.fr, "Quelle vitesse pour l'innovation technologique future?", Nov. 19, 2021
- Deutsche Welle, "Hyping the future: Our exponential era", 2018

SUPERVISION

Main advisor
PhD student in Management: Andres Fernando Duran Cortes
Universidad de los Andes, October 2022-ongoing

Main advisor
PhD student in Technological Innovation Management: Ana Ozuna
Universidad de los Andes, September 2024-ongoing

Co-supervisor
PhD student in Management of Technological Innovation: Fernando Gomez Corredor
Universidad de los Andes, graduated in 2026

Postdoctoral researcher Guillermo Ruiz Pava, shared position between MIT and Universidad de los Andes, May 2019-June 2022

Supervisor
Fifteen undergraduate and graduate research assistant at Universidad de los Andes, January 2019-ongoing

Co-supervisor
Visiting Graduate Research Assistant Mariam Barry at MIT-IDSS between May – August 2016

SERVICE TO MY UNIVERSITY

May 2019-to date, Member of the International Accreditation Committee (EQUIS, AACSB and AMBAs), Universidad de los Andes, School of Management

July 2024 – July 2026 Member of the School of Management Faculty Council

July 2022 – July 2026 Committee Member, Vice-Presidency for Research of Universidad de los Andes: Advised executive leadership on university research strategy, institutional policy development, and high-level academic governance

July 2022 – July 2026 Member of the School of Management Research Committee

July 2022 – July 2026 Member of the Academic Committee of the PhD Program in Management

July 2022 – July 2024 Member of the Graduate Programs Committee of the School of Management

August 2019 – June 2022, Co-organizer of Agora Research Seminar Series at School of Management, Universidad de los Andes

2018-2019, Member of the Exchange and Double-Degree Program Committee, Universidad de los Andes, School of Management

SERVICE TO THE PROFESSION

President of the PhD Thesis Board of Devika Raj, PhD PhD graduate in Business Administration and Management at Bocconi University. Thesis defended on June 18, 2025

Reviewed manuscripts for: Research Policy, Industrial and Corporate Change, Industry and Innovation, Technology Forecasting and Social Change, Scientometrics, Journal of Evolutionary Economics, Plos One

Conference Satellite Session Organizer:

Co-organizer of a satellite session on Complexity Economics at the International Joseph A. Schumpeter Society Conference 2016

Co-organizer of a satellite session on Technology Forecasting at the Conference on Complex Systems 2015

PROFESSIONAL MEMBERSHIPS

International Joseph A. Schumpeter Society, Academy of Management, Strategic Management Society

LANGUAGES

Italian (native) | English (very fluent) | Spanish (very fluent) | French (basic)