Andrea Nigri

University Address

University of Foggia

Department of Economics, Management, and Territory.

Foggia, Italy.

andreanigri.wordpress.com

Permanent Address

Via ***

71122 Foggia, Italy

***

***

RESEARCH STATEMENT (short version)

Andrea is a Tenure-track Assistant Professor (RTD-B) in Statistics at the University of Foggia, with the National Scientific qualification as Associate Professor, according to the Italian higher education system. Prior to joining the University of Foggia, he was a Research Fellow at the Department of Social and Political Sciences, Bocconi University. He works on developing and improving the statistical methodology in the field of Longevity Risk. He has an interdisciplinary background with training in Statistics and its application to demographic research, obtained through a Ph.D. at the School of Statistics in Sapienza, University of Rome, and through the European Doctoral School of Demography, a pan-European Ph.D. training program held at the Max Planck Institute for Demographic Research ad the University of Southern Denmark, which provided him with broad training with particular attention to mathematical and statistical demography.

Andrea has been visiting scholar at the Max-Planck Institute for Demographic Research, at the Interdisciplinary Centre on Population Dynamics, University of Southern Denmark, and at the Department of Clinical Epidemiology, Aarhus University. Prior to starting the Ph.D. program, in 2016 he was a Research Fellow at the Local Health Department of Padua ULSS6, working on epidemiologic surveillance of asbestos-related disease and occupational exposure. His research has served as a bridge between Longevity analysis and Statistical Learning, introducing Regression trees and Neural Networks as integration or full replacement of traditional mortality models.

Andrea's research has captured global attention and has been recognized by different collaborations in particular with the "Individual Finance & Insurance Decisions Centre," from which he obtained a research grant, working with Moshe A. Milevsky, full professor of mathematics and finance at York University in Toronto. Andrea has given invited academic talks in both Europe and the USA, and an invited seminar by AXA that shows interest in his works. He also joined the Editorial Board of "Quality & Quantity. International Journal of Methodology" and he has experience as a Guest Editor for the Special Issues in the field of Statistical Modeling.

His current research agenda contains different strands concerning, among others, the following research questions:

- Competing risks in causes-of-death modeling.
- Age- Period- Cohort modeling for the compositional structure of causes of death.
- Multidimensional longevity modeling (Tensor decomposition approach).
- Age- Period- Cohort framework for population gap modeling. The gender gap in death rates is a prime example, using non-Gaussian distributions.

POSITION, PROFESSIONAL EXPERIENCE

Tenure-track Assistant Professor, University of Foggia,
Department of Economics, Management and Territory.

Statistical Modeling.   Oct 2022 - Present

Research fellow, Bocconi University,
Department of Social and Political Sciences
Statistical Modeling.   Nov 2021 - Oct 2022

Research fellow, University of Foggia,
Department of Agricultural Sciences, Food,
Natural Resources and Engineering.
Social behavior modeling through artificial intelligence.   Nov 2020 - Oct 2021

Research Fellow (Statistician)
at Local Health Department of Padua ULSS6.
Epidemiological surveillance of Mesothelioma.   Sep 2016 – Aug 2017

Statistician, Kode s.r.l, Pisa.   May 2016 – Aug 2016

EDUCATION and SCIENTIFIC QUALIFICATION

National Scientific qualification as associate in the Italian higher education system
(Ministerial Decree n. 553/2021 and 589/2021) for the disciplinary field of 13/D1 - Statistics.   May 2022 - May 2032

Ph.D in Statistics, Sapienza University of Rome,
Faculty of Statistics.   Sep 2017 - Oct 2020

Doctoral School,
International Autumn School "Demographic Methods in Public Health Research"
International Laboratory for Population and Health.
Higher School of Economics, Saint Petersburg   Sep 2018 – Oct 2018

Doctoral School,
European Doctoral School of Demography
University of Southern Denmark, Odense. (In cooperation with the Max Planck Institute for Demographic Research)   Sep 2017 – Jul 2018

Masters Degree,
Big Data.
Sapienza University of Rome,   Jan 2017 – Jan 2018

Master Degree,
Statistic for sample survey. University of Siena,   Nov 2013 – Jun 2016
Thesis: The Italian students' mobility

Bachelor of Science,
Economics. University of Foggia,   Sep 2007 – May 2013
Thesis in mathematics:
Reciprocity and Human Interactions in Game Theory.

INDIVIDUAL INTERNATIONAL RESEARCH FELLOWSHIP and GRANTS:

- "**SynopticAssessment of Human Pressures on keyMediterranean Hot Spots.** CNR (Italian National Research Council) & Bioeconmy in Transition Research Group BiT-RG at Unitelma Sapienza - University of Rome (professor Piergiuseppe Morone). Funded by BLUEMED (BLUEMED CSA - GA 727453)" Jan 2021-Jan 2022

- "**Is Covid Gompertzian? Implications for Finance, Insurance and Economics.** Individual Finance & Insurance Decisions Centre. Professor Moshe Milevsky. May 2020- October 2020.

Founded Research Project:

- **Selective survival and shaping of human longevity.** Funded by Sapienza Univeristy of Rome. Principal Investigator: Elisabetta Barbi. Among Members group: Andrea Nigri.

- **New issues in systemic risk management.** Funded by Sapienza Univeristy of Rome. Principal Investigator: Susanna Levantesi. Among Members group: Andrea Nigri.

Submitted Project Proposal (Under evaluation):

- **PRIN 2022: Causes of deAth dependence stRuctures and the cOmpositioNal effecT on ovErall mortality**. Bocconi (P.I. Daniele Durante), Sapienza, University of Padua. My role: Participant.

- **PRIN 2022: Evaluation strategies to contrast university drop-out through empowerment and to design educational and career guidance practices**. University of Padua (P.I. Lorenza DaRe) and University of Foggia (Unit-P.I. Andrea Nigri)

Research Consulting:

- **Research Consultant (Statistician)** at University of Bozen.
  Monitoring of working transition.   Jan 2020 – Apr 2020

- **Research Consultant (Statistician)** at University of Foggia on Creative@Hubs project.
  High-dimensional data analysis with statistical and machine learning techniques.   October 2022

EDITORIAL BOARDS

- Editorial Board Member: **Scientific Reports**. (2023).

- Guest Editor: Special Issue - Advances in Statistical Modelling for Social Science. (2023). **Annals of Operations Research.** *Short description: Solving practical issues, indeed, can still produce methodological improvements in the statistical domain. This special issue aims to advance the reconciliation of social science and statistics by collecting articles on cutting-edge statistical methods related to social changes, including articles on methodological developments in response to open questions in statistical modeling.*

- Editorial Board Member: **Quality & Quantity**. International Journal of Methodology. (2022).

- Lead Guest Editor: Special Issue - Methods for modelling and understanding population. (2022). changes. **Quality & Quantity**. International Journal of Methodology. *Short description: A collection of advances in statistical modeling that can enhance decision-making processes in the long and short term.*

PUBLICATIONS

Peer Reviewed published articles.

((**A**): A-Class according to the Italian system)

- (**A**) An application of contrast trees for mortality models diagnostic and boosting. S. Levantesi, M. Lizzi, **A. Nigri**. (Forthcoming in Quality & Quantity)

- (**A**) Forecasting multi-population gender gap in life expectancy. L. Cefalo, S. Levantesi, and **A. Nigri**. Social Indicators Research. (2023)

- (**A**) Mortality forecasting using a four-way CANDECOMP/PARAFAC decomposition. G. Cardillo, P. Giordani, S. Levantesi, **A. Nigri** and A. Spelta. Scandinavian Actuarial Journal.(2023)

- (**A**) Multi-country clustering-based forecasting of healthy life expectancy. S. Levantesi, **A. Nigri**, G Piscopo, A. Spelta. Quality & Quantity, 1-27.(2023)

- (**A**) Evaluation of age-specific causes of death in the context of the Italian longevity transition. **Nigri, A.**, Aburto, J.M., Basellini, U., Bonetti, M. Scientific Reports 12, 22624. (2022). https://doi.org/10.1038/s41598-022-26907-3

- (**A**) A tensor-based approach to cause-of-death mortality modeling. G. Cardillo, P. Giordani, S. Levantesi, **A. Nigri**. Annals of Operations Research, 1-20. (2022)

- (**A**) Leveraging deep neural networks to estimate age specific mortality from life expectancy at birth. **A. Nigri**, S. Levantesi, J.M. Aburto. DEMOGRAPHIC RESEARCH. Doi: 10.4054/DemRes.2022.47.8. (2022)

- (**A**) A neural approach to improve the Lee-Carter mortality density forecasts. M.Marino, S.Levantesi, **A. Nigri**. North American Actuarial Journal. https://doi.org/10.1080/10920277.2022.2050260. (2022)

- (**A**) Causes-of-Death Specific Estimates from Synthetic Health Measure: A Methodological Framework. **A. Nigri**, S. Levantesi, G. Piscopo. Social Indicators Research. (2021). https://doi.org/10.1007/s11205-021-02870-w.

- (**A**) The relay for human longevity: Country-specific contributions to the increase of the best-practice life expectancy. **A. Nigri**, E. Barbi, S. Levantesi. Quality & Quantity. (2021). https://doi.org/10.1007/s11135-021-01298-1

- (**A**) Clustering-based simultaneous forecasting of life expectancy time series through Long-Short Term Memory Neural Networks. S. Levantesi, **A. Nigri**, G. Piscopo. International Journal of Approximate Reasoning. (2021) https://doi.org/10.1016/j.ijar.2021.10.008

- Longevity risk management through machine learning: the state of the art. S. Levantesi, **A. Nigri**, G. Piscopo. (2021) Insurance Markets and Companies

- (**A**) The relationship between longevity and lifespan variation. **A. Nigri**, E. Barbi, S. Levantesi. Statistical Methods & Applications. (2021). https://doi.org/10.1007/s10260-021-00584-4

- (**A**) Life expectancy and lifespan disparity forecasting: a Long Short-Term Memory approach. **A. Nigri**, S. Levantesi, M. Marino. Scandinavian Actuarial Journal. (2020) https://doi.org/10.1080/03461238.2020.1814855

- A random forest algorithm to improve the Lee–Carter mortality forecasting: impact on q-forward. S. Levantesi, **A. Nigri**. Soft Computing. (2019) https://doi.org/10.1007/s00500-019-04427-z

- A deep learning integrated Lee-Carter model. **A. Nigri**, S. Levantesi, M. Marino, S. Scognamiglio, F. Perla. Risks. (2019), 7(1):33. DOI: 10.3390/risks7010033

- Magnetic resonance imaging of the sacroiliac joints in SpA: with or without intravenous contrast media? A preliminary report. La radiologia medica. (2019). F. Gentili, L. Cantarini, M. Fabbroni, **A. Nigri**, FG. Mazzei, B. Frediani, M. Galeazzi, L. Volterrani, MA. Mazzei.

- Gastric Cancer Maximum Tumour Diameter Reduction Rate at CT Examination as a Radiological Index for Predicting Histopathological Regression after Neoadjuvant Treatment: A Multicentre GIRCG Study. Gastroenterology Research and Practice Volume. (2018). MA. Mazzei , G. Bagnacci, F. Gentili, **A. Nigri**, et al.

- High-resolution MR lymphangiography for planning lymphaticovenous anastomosis treatment: a single centre experience. La radiologia medica. (2017). MA. Mazzei, F. Gentili, FG. Mazzei, P. Gennaro, D. Guerrieri, **A. Nigri**, Gabriele G, Weber E, Fausto A, Botta G,Volterrani

- Comparison of indocyanine green fluorescence lymphography and magnetic resonance lymphangiography to investigate lymphedema of the extremities. Annali Italiani di Chirurgia. (2022) F. Gentili, F. G. Mazzei, I. Monteleone, G. Gabriele, **A. Nigri**, F. Zerini, M.G. Aboud, M.A. Mazzei, P. Gennaro.

- Covid-19 pandemic: the impact of italian lockdown on cranio-facial trauma in southern Tuscany. (2022). G. Gabriele, **A. Nigri**, B.R. Carangelo, D. Luglietto, N. Pini, F. Cascino, P. Gennaro. Annali Italiani di Chirurgia

Peer-reviewed book chapters and short papers

- Deep Learning framework for ungrouping coarsely aggregated vital rates Andrea Nigri. **A. Nigri**. "Book of short papers - Italian Statistical Society (SIS) 2022". ISBN 9788891932310

- Modelling Life Expectancy Gender Gap in a Multi-population Framework. L. Cefalo, S. Levantesi, and **A. Nigri**. MAF 2022, Mathematical and Statistical Methods for Actuarial Sciences and Finance, pp. 151–155, 2022, ISBN 978-3-030-99637-6, Springer Nature.

- An Application of the Tensor-Based Approach to Mortality Modeling. G. Cardillo, P. Giordani, S. Levantesi, and **A. Nigri**. MAF 2022, Mathematical and Statistical Methods for Actuarial Sciences and Finance, pp. 151–155, 2022, ISBN 978-3-030-99637-6, Springer Nature.

- Predicting the second wave of COVID-19 pandemic in Europe through the Dynamic Evolving Neuro Fuzzy Inference System. S. Levantesi, **A. Nigri**, G. Piscopo. Quantitative Methods in Demography: Methods and Related Applications in the Covid-19 Era (2022). eBook ISBN: 978-3-030-93005-9. Print ISBN: 978-3-030-93004-2.

- An application of contrast trees for mortality models diagnostic and boosting. S. Levantesi, M. Lizzi and **A. Nigri**. IES 2022 Innovation & Society 5.0: Statistical and Economic Methodologies for Quality Assessment BOOK OF SHORT PAPERS. ISBN 978-88-94593-36-5 online.

- The gender gap in lifespan disparity as a social indicator of international countries: A fuzzy clustering analysis approach. L. S. Alaimo, P. D'Urso and **A. Nigri**. IES 2022 Innovation & Society 5.0: Statistical and Economic Methodologies for Quality Assessment BOOK OF SHORT PAPERS. ISBN 978-88-94593-36-5 online.

- Improving longevity risk management through machine learning: a review. Chapter Book. The Essentials of Machine Learning in Finance and Accounting. S. Levantesi, **A. Nigri**, G. Piscopo.

- Estimate age-specific fertility rates from summary demographic measures. An Indirect Model Levering on Deep Neural Network. **A. Nigri**. "Book of short papers - Italian Statistical Society (SIS) 2021". ISBN 9788891927361

- Patterns in the relation between causes of death and gross domestic product. **A. Nigri** and F. Crescenzi. "Book of short papers - Italian Statistical Society (SIS) 2021". ISBN 9788891927361

- LI-CoD Model. From Lifespan Inequality to Causes of Death. **A. Nigri**,, S. Levantesi. Book of short papers - Italian Statistical Society (SIS) 2020". ISBN 9788891910776

Submitted publications with peer review process

- Reliable estimation of grouped mortality data leveraging Deep Learning algorithms. **A. Nigri**, S. Levantesi, S. Scognamiglio. (Under review)

- A multi-way analysis of similarity patterns in longevity improvements. G. Cardillo, P. Giordani, S. Levantesi, **A. Nigri** and A. Spelta. (Under review)

- Mitigation of health and economic impact of outbreaks by managing social distances. PG. Morone, A. Lopolito, **A. Nigri**, R. Caferra. (Under review)

- Chinese consumers' attitude towards ready to eat salads by comparing traditional Logit with Machine Learning methods. A. Stasi , F. Hansstein, **A. Nigri**, F. Garini. (Under review)

- An application of contrast trees for mortality models diagnostic and boosting. S. Levantesi, M. Lizzi, **A. Nigri**. (Under review)

- Lifespan variation among people with a given disease or condition. Z.Yan, I.Permanyer, V.Canudas-Romo, JM.Aburto,**A.Nigri**, O.Plana-Ripoll. (Under review)

In preparation for submission to peer review

- An Age-Period-Cohort model in a Dirichlet framework: A coherent causes of death estimation. **A. Nigri**, R.Graziani, M.Bonetti

- Healthy life expectancy decomposition. A European comparison. L.Alaimo, S. Levantesi, **A. Nigri**

- The gender gap in lifespan disparity as a social indicator of international countries: A fuzzy clustering analysis approach. L. S. Alaimo, P. D'Urso and **A. Nigri**.

Research Consultant (Statistician)

- Dual-Energy CT for Locoregional Staging of Breast Cancer: Preliminary Results. L. Volterrani, F. Gentili, A. Fausto, V. Pelini, T. Megha, F. Sardanelli, M. A. Mazzei. AJR Am J Roentgenol. 2020 Mar;214(3):707-714. doi: 10.2214/AJR.18.20953. Epub 2020 Jan 15.

- A mortality study on male subjects exposed to polyfluoroalkyl acids with high internal dose of perfluorooctanoic acid. P. Girardi , E. Merler. Environ Res. 2019. doi: 10.1016/j.envres.2019.108743. Epub 2019 Sep 14.

INTERNATIONAL RESEARCH STAYS

- 17/10/2022 - 21/10/2022 Max Planck Institute for Demographic Research.Rostock (Germany)
- 15/09/2022 - 03/10/2022 Department of Clinical Epidemiology. Aarhus University (Denmark).
- 01/09/2017 - 31/10/2017 Max Planck Institute for Demographic Research. Rostock (Germany)
- 01/11/2017 - 31/07/2018 Interdisciplinary Centre on Population Dynamics: Department of Epidemiology, Biostatistics and Biodemography. University of Southern Denmark, Odense (Denmark).

CONFERENCE ORGANIZATION and CONFERENCE BOARD MEMBER

- **Session organizer.** Advances in mortality modeling at the international conference: "Mathematical and Statistical Methods for Actuarial Sciences and Finance (MAF) - Tenth edition".
- **Member of Scientific Committee** of the SMTDA 2022 and Demographics 2022 (Stochastic Modeling Techniques and Data Analysis International Conference and Demographics Workshop).
- **Member of Scientific Committee** of the SMTDA 2023 and Demographics 2023 (Stochastic Modeling Techniques and Data Analysis International Conference and Demographics Workshop).
- **Conference Chair**, Fifteenth International Longevity Risk and Capital Markets Solutions Conference. Session: Data Science-2. Washington, DC (USA) 2019.
- **Conference Chair**, Population Association of America. Session: Lifespan Inequalities around the Globe. St. Louis, (USA), 5 May 2021.

INVITED PRESENTATIONS at CONFERENCES and WORKSHOPS

- **SIS 2023 - Statistical Learning, Sustainability and Impact Evaluation Ancona (Italy) June 21, 2023 − June 23, 2023**. Invited talk: Statistical learning for population studies.
- **Max Plank Institute for Demographic Research, 19 October 2022,** Invited talk: Deep learning in longevity projections. Past, present, and chance for future directions.
- **Department of Clinical Epidemiology, Aarhus Univeristy. 21, Sept. 2022 (Aarhus, DK),** Invited Seminar: Statistical modeling for mortality data. Past and future research agenda.
- **2022 Human Mortality Database (HMD) Conference. (sponsored by: AXA, Milliman, SCOR, Université Paris Dauphine), October 2022,** Invited talk: Deep Learning for Longevity projections.

- **Internatioinal Conferance on New Perspectives on Lifespan Inequality, July 2022 (Odense, DK),** Invited talk: Deep Learning for Longevity projections.
- **Department of Health Management & Policy at the University of New Hampshire. 12, December 2021 (Durham, NH, USA),** Invited Seminar: Leveraging deep neural networks to the indirect estimation of vital rates.
- **CPop-University of Southern Denmark. 17, April 2020 (Odense, DK),** Invited Seminar: Deep Learning in Demographic Research.
- **11th Demographic Conference of Young Demographers. 7, February 2020 (Prague, CZ),** Invited Seminar: Introduction to Machine Learning model.
- **Higher School of Economics (HSE). Special lecture at International Autumn School "Demographic Methods in Public Health Research".** September 2018 (Saint Petersburg, RU). Invited Seminar: Machine Learning models in Demography.
- **Selected for the European Association for Population Studies Masterclass.** Prof. Jennifer Dowd (University of Oxford)

DEPARTMENTAL BOARD MEMBERSHIP and STUDENT SUPERVISION

- Sapienza University of Rome. Doctoral School in Statistical Sciences - Curriculum in Demography: Member of the "enlarged" Doctoral Board.
- Supervisor of Giacomo Lanfiuti Baldi, Ph.D. student at Sapienza University of Rome. Doctoral School in Statistical Sciences - Curriculum in Demography
- The Seminar in Economics and Social Sciences (SEMinario in Scienze Economiche e Sociali - SEME). Department of Economics, Management and Territory, University of Foggia: Member of the Scientific Committee

PRESENTATION

- **ORAL PRESENTATION: PopDays AISP 2023 (Roma), Feb 23** An Age-Period-Cohort model in a Dirichlet framework: A coherent causes of death estimation. (Nigri A., Bonetti M., Graziani R.)
- **ORAL PRESENTATION: BSPS 2022 (The British Society for Population Studies Annual Meeting), SEPT 2022.** An Age-Period-Cohort model in a Dirichlet framework: A coherent causes of death estimation. (Nigri A., Bonetti M., Graziani R.)
- **ORAL PRESENTATION: SIS 2022 (MEETING OF THE ITALIAN STATISTICAL SOCIETY), JUNE 22, 2022 – JUNE 24, 2022 (Caserta, Italy),** Deep Learning framework for ungrouping coarsely aggregated vital rates.(Nigri A.).
- **ORAL PRESENTATION: New data for the new challenges of population and society (University of Padova), SEPT 22, 2021 – SEPT 24, 2021 (Virtual),** From Life Expectancy at Birth to Vital Rates. A Novel Approach.(Nigri A., Levantesi S., Aburto JM.)
- **ORAL PRESENTATION: BSPS 2021 (The British Society for Population Studies Annual Meeting), SEPT 14, 2021 – SEPT 15, 2021 (Virtual),** From Life Expectancy at Birth to Vital Rates. A Novel Approach.(Nigri A., Levantesi S., Aburto JM.)
- **ORAL PRESENTATION: Longevity 16 Conference. Sixteenth International Longevity Risk and Capital Markets Solutions Conference. 13th and 14th August 2021. (Copenaghen, DK),** Indirect forecasting of cause-of-death mortality from life expectancy. (Nigri A., Levantesi S., Piscopo G.)
- **ORAL PRESENTATION: SIS 2021 (MEETING OF THE ITALIAN STATISTICAL SOCIETY), JUNE 21, 2021 – JUNE 25, 2021 (Pisa, Italy),** Estimate age-specific fertility rates from summary demographic measures. An Indirect Model Levering on Deep Neural Network.(Nigri A.)
- **ORAL PRESENTATION: SIS 2021 (MEETING OF THE ITALIAN STATISTICAL SOCIETY), JUNE 21, 2021 – JUNE 25, 2021 (Pisa, Italy),** Patterns in the relation between causes of death and gross domestic product. (Nigri A.)
- **ORAL PRESENTATION: PAA (Population Association of America), 10-13 April 2020 (Washington, DC (USA)),** From Life Expectancy at Birth to Vital Rates. A Novel Approach. (Nigri A.) -(Conference canceled Due to Covid-19)
- **ORAL PRESENTATION: SIS 2020 (MEETING OF THE ITALIAN STATISTICAL SOCIETY), JUNE 2020 (Pisa, Italy),** LI-CoD Model. From Lifespan Inequality to Causes of Death. (Nigri A.) - (Conference canceled Due to Covid-19)

- **ORAL PRESENTATION:11th Demographic Conference of Young Demographers, 5.–7. February 2020 (Prague),** Evaluation of the age-specific causes of death, on Italian longevity improvements. (Nigri A.)
- **ORAL PRESENTATION: International Congress on Insurance: Mathematics and Economics 09/2019 (Washington, DC (USA)),** A Deep Learning Approach to Forecast Life Expectancy. (Nigri A., Levantesi S., Marino M.)
- **POSTER PRESENTATION: PAA (Population Association of America), 10-13 April 2019 (Austin, TX),** A deep learning integrated Lee-Carter model (Nigri A., Levantesi S.).
- **ORAL PRESENTATION: PopDays AISP 2019 (Milan),** A deep learning integrated Lee-Carter model (Nigri A., Levantesi S.).
- **POSTER PRESENTATION: PopDays AISP 2019 (Milan),** Reciprocity Dynamics. A Dynamic Pattern to Understand an Unknown Social Behavior
- **POSTER PRESENTATION: PopFest Conference Oxford 2018,** Mortality forecasting.Machine Learning Assisted Approach (MLAA)
- **ORAL PRESENTATION: ESPAnet Italia 2017. Big Data and Social Policies. A new frontier of data management for decision-making in the social field?** Nigri A, "The Italian students' mobility".

TEACHING ACTIVITY

Undergraduated Courses

- **Data Analisys and Data Mining** BA, University of Foggia. Spring 2023
- **Data Analisys and Data Mining** MSc, University of Foggia. Spring 2023

PhD Courses

- **Data Analisys.** PhD in Economics, University of Foggia. Fall 2021 (18 hours)

PhD Lectures

- **PhD Seminar University of Pisa; Department of Economics. 28, November 2019 (Pisa),** Life Expectancy and Lifespan Inequality forecasting. A Deep Learning approach.
- **PhD Seminar University of Foggia; Department of Agricultural Sciences, Food, Natural Resources and Engineering. 20, April 2021 (Foggia),** Introduction to Machine Learning models.

Other teaching

- **Beyond linear regression: An Introduction to Smoothing and Quantile Regression.** 3 hours at the Department of Statistics, Sapienza University of Rome. Master Course in Demography (Professor Barbi). (April 2020; May 2021)
- **Introduction to Machine Learning models.** 3 hours at the Department of Statistics, Sapienza University of Rome. Master Course in Demography (Professor Barbi). (April 2020; May 2021)
- **Introduction to Machine Learning models.** 6 hours at the Department of Statistics, Sapienza University of Rome. Master Course in Demography (Professor Barbi). June 2019
- **Mathematical models in Longevity.** 3 hours at the Department of Economics, Sapienza University of Rome. Master Course in Economics (Professor Bruno). June 2019

CONFERENCE

Population Association of America,   May 2021

New Perspectives on Lifespan Inequality Webinar and Open Discussion,   January 21st 2021

Statistics and Big Data at Google (Tim Hesterberg),   Padova, May 2017

Divulgare ed utilizzare l'epidemiologia dei tumori,   Padova, Dec 2016

XL Congress of the Italian Association of Epidemiology (IAE). Le evidenze in Epidemiologia: una storia lunga 40 anni,   Torino, Oct 2016

COURSES

Structural Equation Modeling (professor Claudio Barbaranelli),
Sapienza University of Rome   September 2-7, 2019

3rd International Summer School on Deep Learning
IRDTA (Inst. for Research Development, Training and Advice)   Warsaw, Poland - July 22-26, 2019,

Machine Learning Algorithms for Econometricians (professor Arthur Charpentier),
SIde (Italian Econometric Association)   Bertinoro, 15 - 20 July 2019

Applied Bayesian Statistics School 2019 (professor Adrian Raftery),
Istituto di Matematica Applicata e Tecnologie Informatiche, Consiglio Nazionale delle Ricerche   Como 24 - 28 June 2019

Deep Learning with Python for the analysis of Big Data,
Sapienza University of Rome   11 Jan.- 15 Feb. 2019

Winter School: Machine and Deep Learning for Neurological Diseases,
University of Pavia   3rd-7th Dec. 2018

Bayesian data analysis for medical data,
University of Trieste   May 2016

OTHER ACTIVITIES

- **Referee for the following journals:** Physica A: Statistical Mechanics and its Applications; Annals of Operation Research; Demographic Research; The Geneva Papers on Risk and Insurance; BMJ Open; Social Indicators Research; ASTIN Bulletin; Canadian Studies in Population; Genus Journal of Population Sciences; Quality & Quantity; Journal of Statistical Theory and Applications; Communications in Statistics: Case Studies, Data Analysis and Applications; British Actuarial Journal; Water journal; Sustainability journal; The Science of the Total Environment; Plos One; Decisions in Economics and Finance; Cleaner Engineering and Technology.

- **Membership:** IAML (Italian Association for Machine Learning), IBS (International Biometric Society), PAA (Population Association of America), AISP (Associazione Italiana per gli Studi di Popolazione), EPAS (European Association for Population Studies), SIDE (Italian Econometric Association), SIS (Italian Statistical Society)

SKILLS

R (Skillful),   **LaTex** (Skillful),

MY SQL (Beginner),   **STATA** (Skillful),

SAS ENTERPRISE MINER (Beginner),   **Python** (Beginner),