

Falco J. BARGAGLI STOFFI

PERSONAL DATA

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ACADEMIC APPOINTMENTS

2018 – Junior Researcher, **LEER - KU Leuven**, Leuven, Belgium
Under the supervision of Prof. K. De Witte
2016 – Research Assistant, **AXES - IMT School for Advanced Studies**, Lucca, Italy
Under the supervision of Prof. M. Riccaboni

ADMINISTRATIVE APPOINTMENTS

2013 – 2018 General Affair Committee Vice President, **City of Campi Bisenzio**, Florence
2013 – 2018 Youth Policy Program Coordinator, **City of Campi Bisenzio**, Florence
2013 – 2018 City Council Member, **City of Campi Bisenzio**, Florence

EDUCATION

2018 – PhD in ECONOMICS, **KU Leuven**, Leuven, Belgium
2016 – PhD in ECONOMICS & DATA SCIENCE, **IMT School for Advanced Studies**, Lucca, Italy
GPA: 3.82/4
2019 Visiting Scholar, **Harvard University**, Cambridge, Massachusetts, USA
2016 Master of Science in STATISTICS, **University of Florence**, Florence
110/110 *summa cum laude*
GPA: 28.91/30
2016 Exchange Semester at **Humboldt University**, Berlin
GPA: 1/1
2014 Bachelor Degree in SOCIOLOGY, **University of Florence**, Florence
110/110 *summa cum laude*
GPA: 28.29/30

ADDITIONAL EDUCATION

2014 Advanced Training Program in ADMINISTRATIVE LAW, **Scuola Superiore Sant'Anna** and **National Association of Italian Municipalities (ANCI)**, Pisa, Italy.

GRANTS, SCHOLARSHIPS AND AWARDS

- Nov 2019 - Full Doctoral Scholarship, **KU Leuven**
- 2016 – 2019 Full Doctoral Scholarship, **IMT School for Advanced Studies** (awarded with the highest score out of 3747 candidates, ex aequo)
- 2016 – 2019 Ph.D. Fee waiver & lodging, **IMT School for Advanced Studies**
- 2019 HSPH Visiting Scientist Salary, **Harvard University**
- MAY 2019 ACIC 2019 Tom Ten Have Mention of Honour, **Mc Gill University - University of Montreal**
- DEC 2018 **Galileo 2019 Project Funding**, Italian Responsible: Prof. G.Gnecco (IMT School for Advanced Studies), French responsible: Fouad El Ouardighi (ESSEC Business School)
- AUG 2018 DSAA 2018 Student Travel Grant Award, **IEEE Computational Intelligence Society**
- JUN 2018 Erasmus Plus Program Scholarship, **Scuola Superiore Sant’Anna** (coordinator) in Consortium with the **IMT School for Advanced Studies** and **Scuola Normale Superiore**
- OCT 2017 Graduation Prize Bardazzi Mention of Honour, **PIN - Polo Universitario Prato**
- MAY 2017 Graduation Prize Villa Favard, awarded by the **Alumni association of the Faculty of Economics, University of Florence** for the most original Master Thesis of the academic years 2015/2016
- 2015-2016 Merit and Productivity-based Award, **Università degli Studi di Firenze**
- MAY 2015 Erasmus Plus Program Scholarship, **Università degli Studi di Firenze**
- MAY 2013 Consigliere Anziano, mention awarded to the most voted City Councillor in the 2013 Municipal Election, **Campi Bisenzio, Metropolitan City of Florence**
- SEPT 2010 Best Diploma Grade Award, **Liceo Scientifico Agnoletti, Sesto Fiorentino, Florence, Italy** (US equivalent: valedictorian)
- JULY 2010 Mention in the Italian Excellence List, **Albo Nazionale delle Eccellenze INDIRE** awarded to the \approx 5th percentile of Italian High School students

RESEARCH INTERESTS

Data Science for Social Good, Machine Learning, Causal Inference, Heterogeneous Effects, Policy Evaluation, Public Health, Economics of Education, Causal Inference on Networks

PUBLICATIONS (PEER REVIEWED)

Journal Publications

- 2019 “Causal tree with instrumental variable: an extension of the causal tree framework to irregular assignment mechanisms” (with G. Gnecco), **International Journal of Data Science and Analytics**, DOI: 10.1007/s41060-019-00187-z

Conference Proceedings

- 2018 “Estimating Heterogeneous Causal Effects in the Presence of Irregular Assignment Mechanisms” (with G. Gnecco), **Proceedings of the 5th IEEE International Conference on Data Science and Advanced Analytics**, DOI 10.1109/DSAA.2018.00010

Book chapters

- 2019+ “Supervised learning for the prediction of firm dynamics” (with J. Niederreiter and M. Riccaboni), in S. Consoli, D. Reforgiato Recupero, M. Saisana (EDs) *Data Science for Economics and Finance: Methodologies and Applications*, Springer, forthcoming

Policy Papers

- 2019+ “The heterogeneous effects of the GOK policy” (with K. De Witte and G. Gnecco), **Steunpunt Sono Research Report**, forthcoming

WORKING/SUBMITTED PAPERS

1. “Heterogeneous causal effects with imperfect compliance. A novel Bayesian machine learning approach” (with K. De Witte and G. Gnecco) - Submitted to Journal of Applied Statistics and **ACIC 2019 Tom Ten Have Mention of Honour**
2. “Machine Learning for Zombie Hunting. Firms’ Financial constraints, Productivity and Misallocation” (with M. Riccaboni and A. Rungi)

ONGOING RESEARCH PROJECTS

3. “Estimating Heterogeneous Causal Effects in the Presence of Interference” (with L. Forastiere and C. Tortú)
4. “Who Is Most Vulnerable? Estimating Heterogeneous Causal Effects of Air Quality Regulations with a Novel Principal Stratification-based Bayesian Machine Learning Approach” (with F. Dominici, F. Mealli and R. Nethery)
5. “Causal Rule Ensemble: Inference of heterogeneous treatment effects in observational studies” (with F. Dominici and K. Lee)

TEACHING EXPERIENCE

IMT School for Advanced Studies

- 2019– Lecturer for the graduate course DATA SCIENCE LAB
2018 Teaching Assistant for the graduate course MACHINE LEARNING

PROFESSIONAL AFFILIATIONS

American Statistical Association (ASA), Institute of Electrical and Electronics Engineers (IEEE), IEEE Computational Intelligence Society (CIS), The National Institute for Advanced Mathematics of Italy (INdAM)

CONFERENCES AND INVITED SEMINARS

- 2020 **COSTNET 2020**, EU Cooperation for Statistics of Network Data Science, March
Flemish Ministry of Education, Invited Seminar, February
ICHPS2020, International Conference on Health Policy Statistics, ASA, San Diego, January
- 2019 **CoPFiR**, JRC Community of Practice in Financial Research, European Commission, Brussels, December
IMT School for Advanced Studies, Research Symposium, Lucca, November
Bank of England/King's College London, Modelling with Big Data and Machine Learning: Interpretability and Model Uncertainty Conference, London, November
Sant'Anna School of Advanced Studies, Invited Seminar, Pisa, October
Harvard University, Research Symposium, Cambridge, Massachusetts, USA, May
ACIC, Atlantic Causal Inference Conference, McGill University, Montréal, May
- 2018 **CEPR/EIEF/Bank of Italy**, Conference on Firm Dynamics and Economic Growth, Bank of Italy, Rome, December
Leuven Economics of Education Lab, Invited Seminar, KU Leuven, December
DSAA, 5th IEEE International Conference on Data Science and Advanced Analytics, IEEE & ASA, Turin, October
IMT School for Advanced Studies, Research Symposium, Lucca, July
EUROCIM, European Causal Inference Meeting, University of Florence, Florence, April
RAPEQM, Recent Advances in Public Economics and Quantitative Methods, IMT School for Advanced Studies & KU Leuven, Lucca, March

OTHER POLITICAL AND ADMINISTRATIVE EXPERIENCES

- 2015 – 2018 Member of the Regional Board of Youth Political Organization
- 2014 – 2016 Students' Representative in the Department Council, Università degli Studi di Firenze, Faculty of Economics and Statistics
- 2013 – 2018 Member of the Municipal Board of Political Party
- 2013 – 2017 Member of the Metropolitan Board of Florence of Political Party
- 2013 – 2017 Chair of Political Party at Neighborhood Level

LANGUAGES

ITALIAN: Mother tongue
ENGLISH: Full Professional Proficiency

COMPUTER SKILLS

Programming Languages: Python (basic)
Statistical Software: R, Stata
Mark up languages: \LaTeX , Markdown
Other Software: Linux computing systems, Git/GitHub