

Name Surname: FEDERICO BONOFIGLIO  
Citizenship: EUROPEAN UNION  
Profession: SENIOR STATISTICIAN/DATA SCIENTIST  
Contacts:

### Education

September 2018: [PhD](#) (magna cum laude), Faculty of Mathematics and Physics (Albert-Ludwigs University of Freiburg, Germany).

- PhD work investigated a resampling procedures (bootstrap) based on aggregate statistics only, used to recover individual records and thereof multivariable inferences, typically unavailable due to disclosure constraints (Rel: Prof. Martin Schumacher, Prof. Hein Putter).

September 2012 – October 2015: [Marie Curie Fellow](#).

- As Fellow I collaborated in a prestigious network of Universities and private companies with the task of developing new meta-analytic methods for competing risks survival data (Sup: Prof. Jan Beyersmann).

March 2011: M.Sc in Statistics (LM-82, final mark = 100/110), Faculty of Statistics (Milano-Bicocca University, Italy).

-Took courses on Theory of Inference, Probability, Stochastic Processes, Statistical Modeling and Programming, as well as on other methodological applications in the Bio and Medical sciences. Thesis on observational study with application of multi-level multi-variable piece-wise-linear regression methods (Rel: Prof.ssa Antonella Zambon, Dott.ssa Laura Galli)

July 2008: Bachelor in Biology and Nature Management (L-32, final mark = 103/110), Faculty of Mathematics and Natural Sciences (Varese-Insubria University, Italy).

-Took courses on (Plant)Biology, Genetics, (Plant)Ecology, Zoology, Physics, (Bio)Chemistry, Geology, Geomorphology, as well as on various Lab and Field exercises. Thesis on field/lab Eco-physiology plant experiment and multi-variate statistical analysis of the collected data (Rel: Prof. Bruno Cerabolini).

### Jobs

September 2012-September 2019: Statistician, Institute of Medical Biometry and Statistics (IMBI, University Medical Center Freiburg, Germany).

-Analysis of complex Biomedical data using advanced survival (multi-state model) and machine-learning (e.g., Deep Boltzmann machines, Variational Autoencoders, Generative Adversarial Networks) techniques. Performed related methodological research. Redaction of statistical reports within multi-center consortia, as well as statistical consulting for medical staff and students. Occasionally held focused courses in Statistics.

March 2012 - September 2012: Statistician, Regional Agency for Environmental Protection (ARPA – Modena, Italy).

-Elaboration of air pollution data via GIS and spatial statistical techniques in collaboration with local staff. Set up of local data-bases and conception of epidemiological models for the link between air pollution and human health outcomes.

July 2011 – September 2012: Statistician, Institute for Cancer Research (IST-Genova, Italy).

-Analysis of large registry data with advanced survival techniques for the link between mortality and medical irradiation in a cardiopathic patient population.

October 2010 – October 2011: Statistician, Department of Infectious Diseases of the Monte Tabor - S. Raffaele Hospital (Milan, Italy).

-Temporal regression analysis of local patients registry data in collaboration with medical(care) staff.

### Analytic skills

Environmental sampling and epidemiology, spatial modeling, digital cartography, event-history analysis, fusion and integration of different data sources, meta-analysis, machine/Deep learning (including knowledge on Convolutional Neural Network techniques for image data and basic insights on Genetic Programming/Evolutionary Computing), longitudinal analysis, various resampling/simulation, multi-variable regression, and inferential techniques. About me: problem-solving oriented and collaborative.

### Computer skills

R, Julia, C++, Python, MySQL, GRASS-GIS, SAS, STATA, LaTeX, Linux OS.

### Linguistic skills

Italian, English, German, French. I understand Spanish and Portuguese. Basics of Latin and Greek.

### Publications

Submitted to Statistics in Medicine (28/01/19): “Recovery of original IPD inferences from empirical IPD summaries only: applications to distributed computing under disclosure constraints.”

“Meta-analysis for aggregated survival data with competing risks: a parametric approach using cumulative incidence functions”. Research Synthesis Methods ([online](#), September 2015).

### Talks

“Distributed Survival Analysis under Disclosure Constraints”. Statistische Woche, Trier, 10-13 Sept. 2019.

“Recovery of IPD inferences from key IPD summaries only: application to distributed computing under privacy constraints”. DAGStat 2019 , LMU Munich, 18-22 March 2019.

“Recovery of IPD inferences from key IPD summaries only: Applications to research reproduction and synthesis”. 64. Biometrisches Kolloquium, Goethe-Universität Frankfurt, 25-28 March 2018.

“A meta-analysis procedure for aggregated survival data with competing risks”. Oral contribution at the International Biometric Society (IBS) Conference, Florence, 6-11 July 2014, and at the SafJR conference, Warwick, 3-4 April 2014.

“Parametric meta-analyses of trials with incomplete reporting of competing events may be performed for cumulative event probabilities”. Oral contribution at the Deutsche Arbeitsgemeinschaft Statistik (DAGSTAT) Conference, 18-22 March 2013.

“Cholesterol Increase during first-line HAART as a Possible Effect of Immune Reconstitution”. Poster at the European AIDS Clinical Society (EACS), 12-15 October 2011, Belgrad.

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19/10/19

Federico Bonofiglio