# Curriculum Vitae

# Personal Data

FAMILY NAME: Ponzi FIRST NAME: Erica

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# EDUCATION

February 2021 - Current

Adviser/Statistician at Oslo University Hospital

Clinical Trial Unit Froskningstøtte

August 2019 - Current

Post doctoral researcher at University of Oslo

Oslo Center for Biostatistics and Epidemiology (OCBE)

Project: "Dimension reduction techniques

and data integration in omics" Supervisors: Prof. Magne Thoresen

September 2015 - May 2019

PhD student at University of Zurich

PhD in Epidemiology and Biostatistics

Epidemiology, Biostatistics and Prevention Institute

Institute of Evolutionary Biology and

Environmental Studies

Thesis title: "Measurement error modeling

in biological applications"

Supervisors: Prof. Leonhard Held, Prof. Lukas Keller,

Dr. Stefanie Muff

January 2018 - June 2018

Visiting researcher at Imperial College, London

Project: "Bayesian Measurement Error Models in the

EXPOsOMICS project"

Supervisors: Prof. Paolo Vineis, Prof. Marta Blangiardo

Project funded by SNSF via Doc. Mobility fellowship

October 2012 - October 2014

Master Degree at Politecnico di Torino

Mathematical Engineering

Thesis title: "A Bayesian network for the analysis of X chromosome polymorphism in a forensic problem" Supervisors: Prof. Mauro Gasparini, Politecnico di Torino

Prof. Carlo Robino, Universitá di Torino

October 2009 - October 2012

Bachelor Degree at Politecnico di Torino

Mathematics for Applied Science and Engineering Thesis title: "Statistical models for lot-sizing problems"

Supervisors: Prof. Paolo Brandimarte,

Politecnico di Torino

# Work Experience

#### September 2014 - July 2015

#### Researcher in Biostatistics

Group of Molecular and Genetic Epidemiology

Human Genetics Foundation (now IIGM) in Turin, Italy Statistical analysis and assistance in large epidemiological studies, focused mostly on cancer genomics and environmental effects on non-communicable diseases

Advisor: Prof. Paolo Vineis

### September 2013 - July 2014

### Academic Tutor

Politecnico di Torino

Assistance and collaboration during educational activities in university areas (library, study room, foreign students assistance)

### February 2013 - July 2013

### **Academic Tutor**

Politecnico di Torino

Didactic activities, assistance during lectures, laboratories, consulting and exams in probability and statistics courses

Advisor: Prof. Mauro Gasparini

### MAY 2012 - AUGUST 2012

### Internship

Blackbirds S.r.l., Via Capua 28A, Turin, Italy

Data management and analysis in marketing, economics and finance optimization

# TEACHING EXPERIENCE

July 2017 - August 2017

### Field Course

Kalahari Research Center, South Africa

Lecturers: Prof. Lukas Keller, Prof. Marta Manser

#### February 2017 - June 2017

# Data Analysis in Biology

University of Zurich

Lecturers: Prof. Owen Petchey, Dr. Stefanie Muff

### September 2016 - February 2017

### Clinical Biostatistics

University of Zurich

Lecturers: Prof. Leonhard Held

### Conferences and talks

# OCTOBER 2020 Invited Talk at Sven Furberg Seminar in Bioinformatics and Statistical Genomics, University of Oslo

Title: "Integrative analysis of multi-omics data improves model predictions: an application to lung cancer"

# NOVEMBER 2019 Statistics and Data Science Workshop, KAUST, Saudi Arabia

Poster presentation

Title: "Bayesian Approach for Omic Data Integration"

### NOVEMBER 2019 Invited Lecture at KAUST, Saudi Arabia

Title: "Measurement Error and the Simulation Extrapolation Technique"

### August 2019 ISI World Statistics Conference, Kuala Lumpur

Speaker in Contributed Paper Session

Title: "Bayesian Measurement Error Models for air pollution and health studies"

### March 2019 Invited Talk at ISPM, Bern

Title: "Measurement Error Modeling in Biological Applications"

# July 2018 International Society for Bayesian Analysis (ISBA) conference, Edinburgh

Poster presentation

Title: "Bayesian Measurement Error Models for air pollution and health studies"

# June 2018 Bayesian Biostatistics, Cambridge

Oral presentation

Title: "Bayesian Measurement Error Models for air pollution and health studies"

### October 2017 Hole Nesting Birds Conference, Trondheim

Oral presentation

Title: "Estimating heritability and response to selection in the presence of phenotypic error"

### OCTOBER 2017 Invited talk at NTNU, Trondheim

Title: "Selection gradients and response to selection in the presence of phenotypic error"

# July 2017 Wild Animal Model Biennial Meeting (WAMBAM), Montreal

Oral presentation

Title: "Heritability and the response to selection in the presence of phenotypic measurement error: effects and cures"

### NOVEMBER 2016 PhD symposium Life by Numbers, Heidelberg

Poster presentation

Title: "Extending the simulation extrapolation (SIMEX) technique to pedigree reconstruction - a statistical method meets quantitative genetics"

# July 2016 International Society for Bayesian Analysis (ISBA), Cagliari

Poster presentation

Title: "Bayesian hierarchical models for the estimation of binary traits heritability"

### June 2015 European Congress of Epidemiology, Maastricht

Poster presentation

Title: "Hypomethylation of AHRR and F2RL3 genes is associated with lung cancer: genome-wide study in two prospective cohorts"

# RESEARCH VISITS

January 2020 System Epidemiology group, UiT, Tromsø

Collaborator: Dr. Kajsa Møllersen

December 2019 Epidemiology and Biostatistics group, Imperial College Lon-

don

Collaborator: Dr. Marc Chadeau-Hyam

NOVEMBER 2019 Bayesian Computational Statistics and Modeling group,

KAUST, Saudi Arabia

Collaborator: Prof. Haavard Rue

June 2018 Computational and Chemical Biology group, IIT, Genoa,

Italy

Collaborator: Dr. Sergio Decherchi

October 2017 Centre for Biodiversity Dinamics, NTNU, Trondheim

Collaborator: Prof. Henrik Jensen

# GRANTS AND SCHOLARSHIPS

January 2017 Doc. Mobility Fellowship

Swiss National Science Foundation (SNSF)

OCTOBER 2017 Travel Grant

Norwegian University of Science and Technology (NTNU)

### OTHER CONTRIBUTIONS

- Statistical advising: statistical consulting and support for university hospitals and research groups in clinical sciences and biology. I did most of my advising activity at the OCBE group at UiO. Previously I have given statistical assistance and teaching to the evolutionary biology group at the University of Zurich (see field course and teaching experience) and assistance with statistical analysis in the genomics group at Imperial College and IIGM.
- Reviewer for scientific journals: International Journal of Cancer, Trends in Ecology and Evolution, Frontiers in Public Health
- External examinator on thesis and student projects
- R packages and tutorials for biological applications

### Computer skills

STATISTICAL SOFTWARE R (expert knowledge and package development) SAS, STATA, SPSS (basic)

DATABASE SQL