Postdoc vacancy "Statistical Methods for genealogy data and micro-data linkage" GENPOP ERC Project, Alma Mater Studiorum University of Bologna

We are looking for a Postdoctoral Researchers to join the research project "Genes, Genealogy and the evolution of demographic change and social inequality", Acronym GENPOP. The project is funded by the European Research Council (ERC), with Prof. Nicola Barban as the principal investigator. More information is available at http://www.genpop.org or https://cordis.europa.eu/project/id/865356.

Project description

The aim of the project is to study a range of related questions on the long-term evolution of demographic processes in family networks from 1800 until today by using existing micro-census data and internet-based genealogies. Demographic change and inequality mark modern society, making indispensable the understanding of demographic processes and the planning of effective policies essential. As demographic processes evolve slowly across generations, the combination of historical with current data can help in understanding the process of population evolution. The EU-funded GENPOP project will investigate long-term demographic processes in family networks from 1800 until today by using existing data on internet-based genealogies. It will use innovative Big Data and micro-census data to examine fertility and mortality in family networks and diversity between and within families across generations, to understand the impact migration had on the different generations and to delineate the long-term models of assortative mating.

Within this framework, GENPOP offers a **12-month postdoc position (renewable up to 36 months, pending favorable performance review)** at the University of Bologna, Department of Statistical Sciences.

Responsibilities

The post holder will be expected to participate fully in the research life of the research group, and engage in advanced independent research within the remit of

the project. More specifically, the appointed researcher will be involved in the following tasks:

a) **Development and application of statistical methods for the analysis of internet-based genealogy data;**

b) **Development and application of probabilistic and machine learning approaches to historical record linking;**

c) **Analysis of bias and selectivity of non-probabilistic samples;**

d) Publish research of an internationally excellent standard;

e) Represent the research group at internal and external meetings/seminars and present papers at conferences and public meetings;

f) Participate in the research activities of the <GENPOP project and the Department of Statistical Sciences;

g) Undertake appropriate administrative/organisational duties within the group when required such as organizing research meetings, conference sessions and reporting to the funders;

Selection criteria

Applicants should hold a PhD, (or be close to completion), in statistics, sociology, demography, economics, computer science or another relevant discipline. Training and expertise in analysing secondary data, strong quantitative analysis skills are essential. Candidates will be required to show evidence of developing a track record of excellent quality publications in peer-reviewed academic journals. **Previous experience or training on the data linkage and for treating bias in non-probabilistic samples is desirable.**

The University of Bologna

The Alma Mater Studiorum stands for quality research and education connecting past and future. Not only is Bologna the oldest university in the Western world, but it also scores among the three top Italian universities for both research and education. Hosting a remarkable amount of European-funded research grants, internationalization is an important part of the University's strategic agenda. The

research offices of the University of Bologna provide highly specialized support for ongoing international grants, as well as for new grant acquisitions. Thanks to this arrangement, talented researchers are given scope for developing groundbreaking research in a liberal environment.

Last but not least, with one fifth of its population made of students, a thriving entrepreneurial scene and an enviable quality of life, Bologna is one of the most sought-after areas to live and work in Italy and Europe. The University's facilities are entwined in the medieval layout of a vibrant, young city. Its international airport can be reached from the city center in a few minutes, public transport is capillary and fast train connections make reaching other Italian and European sites fast and convenient.

How to apply

This is a full time, fixed-term appointment starting as soon as possible until   with the possibility of further extension. **The closing date for applications is Friday, 29th January 2021.** Shortlisted candidates will be interviewed online using the software Microsoft Teams on Thursday, 11th February 2021.

You will be required to upload a CV, covering letter, a sample of written work, and details of three referees as part of your online application.

For administrative information on this position please contact Monica Castagnari, monica.castagnari [at] unibo.it, +39 051/2098189.

For scientific questions, please contact the **PI Nicola Barban**, n.barban [at] unibo.it.