COLLOQUIUM SERIES
European Doctoral School of Demography

Monday, March 14th – 3 p.m.
Aula Fanfani (Sapienza Università di Roma, Via del Castro Laurenziano 9, Roma - Facoltà di Economia, 5th floor)

Gustavo De Santis
(Full Professor, University of Florence) and Massimo Mucciardi (Assistant Professor, University of Messina)

Cultural distances and APC models: a case of serendipity?

Abstract: First the recently proposed DBS-EM method, or Distance Between Strata estimated with the EM (Expectation Maximization) algorithm is presented. The method, which is typically, albeit not necessarily, applied on cultural data, permits researchers to measure how close to, or far from, each other any two subsets of observations (or strata) are, relative to the average distance observed within the whole sample. When the strata are formed on the basis of supposedly meaningful variables (e.g. age or region of residence) the method tells whether these variables actually characterize, and thereby differentiate, observations. With a proper, repeated set of observations, the stratification variables can be age, period, and cohort, i.e., an APC model. These models have long attracted scholars, but also frustrated them, because of the intrinsic collinearity problem (C=P-A). With the DBS-EM approach, however, collinearity disappears and, if the data permit, the relative importance of the three dimensions (age, period and cohort) can be assessed: an absolute novelty in this field, which, however, also suffers from a few limitations, discussed in the paper. In our application on Italian data over the years 1993-2013, age and cohort strongly shape cultural attitudes, while cohort and period have some impact on political orientations.