

**Dipartimento di Metodi e modelli  
per l'economia, il territorio e la finanza  
(Memotef)**

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**Abstracts**

<b>European doctoral school of demography (EDSD)</b> <b><i>Posters speed presentations</i></b>
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**Søren Kjærgaard**

***Cohort Potential Support Ratio***

The Prospective Potential Support Ratio has been proposed to be a measure that accurately quantifies the burden of ageing, by identifying the fraction of the population that have passed a certain measure of longevity e.g 17 years of life expectancy. Nevertheless, the Prospective Potential Support Ratio focusses solely on the current mortality schedule, or period life expectancy. Instead, we propose to look at the actual mortality experienced by cohorts in a population and focus on cohort life expectancy. Differences between the two perspectives, period and cohorts, are analysed using mortality models, historical data for low mortality countries, and forecasted data for US and UK. Cohort life expectancy takes future mortality improvements into account which leads to a higher Prospective Potential Support Ratio. Our results indicate that using cohort instead of period life expectancy returns up to one extra worker per retiree among the analysed countries. We discuss the policy implications that our cohort measure implies, by suggesting directions to alleviate the ageing burden of populations.

**Gabriel Brea Martinez**

***Measuring poverty among workers in Barcelona, XVIII-XIX Centuries***

This poster focuses on the analysis of occupational poverty experienced in Barcelona's area during the transition from the Old Regime to Industrialisation in a crucial time of economic and demographic change (1715-1860). The precise objectives are finding how poverty changed over time, who were the poor and at which levels among the occupational structure. The used source are the "Llibres d' Esposalles" (Marriage Books) of Barcelona's Diocese, which were collected in the Barcelona Historical Marriage Database (BHMD), a source containing taxes charged to all marriages celebrated between 1451 and 1905. Those taxes were organised in different social and occupational categories according to the spouses status, which ranges from nobility's high paid values until the lowest level paid by peasants, low-skilled artisans and daily workers. Nonetheless, for this analysis only the last level, called Amore Dei (by God's Love) is used. It is a measure exonerating any person independently from its occupational group from paying the tax by reasons of conjectural poverty. The proportions of conjectural poverty among occupations changed from a marked pattern of seasonality to an increasing and homogenous distribution, accompanying the pass from an agricultural society to another industrialised. Furthermore, among occupations, Daily-Workers represented the poorest group, however, textile workers as Weavers and Spinners became increasingly poor with the industrialisation of their occupations. Hence, it is possible to conclude that the poverty increased with the Industrialisation in the Area of Barcelona, affecting more urban areas and much less rural zones.

**Ugo Filippo Besellini**

***Modeling and Forecasting Age at Death Distributions***

Age at death distributions provide an extremely informative description of mortality, yet they are generally neglected in modeling and forecasting. In this article, we use age at death distributions to model the age-specific pattern of mortality and to inform mortality forecasts. In particular, we introduce a segmented linear transformation model based on the modal age at death and the variability of deaths before and after the mode. This approach allows capturing the compression and shifting dynamics of mortality. We illustrate our methodology by estimating the distribution and life expectancy of two high-longevity countries in the last thirty years. We show that the fitted life expectancies are very close to the observed historical values. Furthermore, we forecast distributions and life expectancies fifteen years ahead by using time series models for the parameters of the segmented linear transformation.

**Maria Bilo**

***Postponement of senescence: when is the entry into old age?***

Industrialized countries face now the consequences of the ageing process of their populations. More and more people reach the old age. For an industrialized country, such as Germany, to retain their welfare state, its economy must seek to increase the longevity of its human capital. For example, by raising the retirement age. In this respect, it is important to know how long older people are able to participate in the labor market. To answer this question, we conducted a longitudinal analysis with data from the German Ageing Survey in the years 1996 and 2008. With socio-economic variables weighted margins from a logistic regression we calculated the temporary healthy life years in the physical and social aspect of single ages from 65 to 84. The results show that there is a postponement of senescence from 1996 to 2008. The differences are recognizable in both aspects, whereby the postponement in the physical dimension is stronger than in the social one. We conclude that there are unused resources in the age as from 65 and Germany may should focus on these age groups to integrate them more efficient in the labor market to be able to face the ageing population and its consequences.

***Population and society I: ageing and well-being***

discussant: Anthony C. Masi (McGill University, Montreal)

**Giuseppina Guagnano, Maria Rita Sebastiani**

***Away from dissatisfaction, closer to well-being: a multidimensional synthetic measure***

Into the international debate about methods for measuring social progress of population, there has been increasing interest in individual subjective opinions about different aspects of quality of life (elementary indicators). In the literature, many methods have been introduced for producing measures of subjective well-being based on these opinions. Some of these methods aim to construct synthetic measures that allow considering all the aspects simultaneously. This topic often requires a subjective choice about the aggregation formula, the weighting structure and, when the opinions are encoded by means of categorical ordinal values, the eventual quantification of the original variables. Here, starting from Istat Multipurpose survey on households' aspects of daily life, we propose an original method for constructing a global satisfaction index. We introduced a variable based on the joint distribution of all the elementary indicators. This approach allows us to maintain the original ordinal data scale. We also implemented a simulation study that confirms the appropriateness and efficacy of the proposed method. We then applied it to measure the global satisfaction degree of the Italian population, using Istat data for the year 2013.

**Pietro Checcucci (Istituto per lo sviluppo della formazione professionale dei lavoratori - ISFOL),**

**Alessandra De Rose, Filomena Racioppi (Dipartimento di Scienze statistiche, Sapienza)**

***More years of life, more years of work: active ageing challenges and businesses age management practices***

It is widely accepted that population aging has not to be dealt only as a challenge for the welfare systems, but also as a source of opportunities. Implications of working population aging can be detected both at individual and at business level. At individual level, an expected longer life will result in a prolonged

working life, with more and differentiated career paths; a more satisfying quality of life could be achieved with a better distribution of working time throughout the life course. Businesses, in turn, could seize the opportunity of the increased availability of workforce which is, on average, older but also highly motivated.

Many initiatives have been proposed at European level aimed to improve an active ageing, including the enhancement of the working conditions for a growing numbers of older people in Europe, encourage healthy ageing and strengthen solidarity and cooperation between generations.

At business level this process leads to the implementation of a system of strategies called "Age Management" aimed at a better use of the experience and abilities of older generations of workers; rethink the forms of work organization; review the approaches used in the process of recruitment. A number of practices are on the table: leading the competence transfer between generations, monitoring and supporting the time and procedures of retirement, exchanging knowledge between youngest and oldest workers (reverse mentoring) and other good practices such as life-long learning, and the monitoring of workers' health with periodical medical checkups.

The aim of this paper is to reflect on the implications of demographic aging on Italian businesses workforce and its management. We address the topic by illustrating the results of two recent surveys, conducted on a sample of large and small-medium enterprises respectively, held in 2013 by ISFOL (the Italian Institute for the Development of Vocational Training of Workers).

## ***Population and society II: urban poverty in historical perspective***

discussant: Anthony C. Masi (McGill University, Montreal)

**Marco Teodori**

### ***Urban poverty and nutritional deficiencies. The soup kitchens of the Circolo di S. Pietro in Rome since the Unification to the second postwar period***

The soup kitchens have an ancient tradition, but they are also a constant presence in Italian contemporary cities. Therefore, this type of service which tackles the effects of poverty should be studied in the long run to understand how it changed over time in relation to the evolution of the social, political and economic context.

In this respect, many questions require further investigations. How have the institutions that provide nutritional aid and the people who benefit from them, changed over time? What happened in Italian cities after the transition from the pre-unification to the post-unification period? What role did public and private institutions play? Was there any convergence or conflict between the religious initiatives and those carried out by central and local government?

The aim of this paper is to find some answers to these questions with regard to Rome. The research studies the evolution of the activities of the Circolo S. Pietro, which has long been the most important Catholic association in the Capital in its activities helping poor.

**Adriana Conti Puorger**

### ***Le associazioni cattoliche post conciliari: attori di inclusione sociale sul territorio di Roma***

Il lavoro si colloca all'interno del filone di ricerca sulla dimensione territoriale delle politiche di coesione (Conti Puorger, 2013). La lettura geografica di tale impostazione si inserisce sia nelle teorie che si occupano della giustizia spaziale (Harvey, 1973) sia nelle pratiche delle politiche di coesione territoriale. Coesione dunque come opposto di esclusione! Partendo da questa visione nel lavoro si vuole cogliere l'evoluzione degli interventi di alcuni soggetti quali la Caritas e la Comunità di Sant'Egidio in una lettura evolutiva. La Chiesa si è sempre occupata dei poveri ma alcune associazioni hanno iniziato ad operare consolidando la loro forma all'indomani del Concilio Vaticano II. Affiancando i dati sull'evoluzione dell'operato di tali associazioni ad uno studio sull'andamento delle dinamiche della popolazione nei municipi di Roma si vuole porre attenzione alla modificazione della composizione dello spazio urbano e alle criticità presenti nella città di Roma. In tal modo si vuole indagare sull'interpretazione che ha condotto all'articolazione della spazialità contemporanea come risultanza di molte diverse spazialità per una lettura dell'organizzazione della città di Roma nell'articolazione dei suoi municipi.

## ***Economics and politics of formal and informal institutions***

discussant: Giovanni Di Bartolomeo (Dipartimento di Economia e diritto, Sapienza)

**Filippo Celata, Cary Yungmee Hendrickson, Venere Stefania Sanna**

### ***The sharing economy as community marketplace? Trust, reciprocity and belonging in peer-to-peer accommodation platforms***

Does the sharing economy offer merely a new, more direct, access-based venue for conducting impersonal market transactions, or does it strengthen social ties and sense of belonging? This article seeks to contribute to this debate by focusing comparatively and from an evolutionary perspective on the main sharing platforms in the accommodation domain. We argue that to mobilize a sense of community among users is crucial for motivating their active participation in the self-regulation of peer-to-peer exchanges and for dealing with trust issues which are especially relevant when sharing implies co-presence and/or non-monetary compensation. The causes and potential consequences of declining social depth in sharing practices are discussed.

**M. Rota, M.C. Bramati, A. Palestini**

### ***Inherited culture, institutions and economic development in Italy***

Cultural traits are often invoked as the determinant of different economic outcomes (Bisin and Verdier, 2001; Guiso et al., 2006; Tabellini, 2010; Spalare and Warczag, 2013). While there is a clear consensus on the importance of culture in affecting the economy, the transmission mechanism of cultural traits to economic outcomes is still widely debated. Although, in principle, many transmission channels are at stake, the linkage with institutions appears to be of more general interest (Alesina and Giuliano, 2015). Institutions and culture are inevitably interconnected posing several problems in identifying a unique causality nexus, generally explained using history, which nonetheless cannot exclude reverse causality and omitted variable bias.

This paper aims at identifying the channel through which inherited cultural traits affect current economic development in the long run. The study is carried out using data on 102 Italian provinces and assesses whether cultural traits from the past shape the current ability of formal institutions to respond effectively to civic claims. The latter is measured using the length of trials by province. The results of the analysis indicate a strong effect of inherited cultural traits on the different quality of current formal institutions whereby different levels of development are determined within country. Those effects are robust to the inclusion of accumulation of human capital, past economic development, geographical location, and current civic capital. Moreover, we find that the effects of inherited cultural traits might be additional and not necessarily alternative to past formal institutions in influencing current economic behavior and output.

**Michele Postigliola**

### ***Non-Linear budgetary policies: evidence from 150 years of Italian public finance***

We investigate the sustainability of Italy's public finances from 1862 to 2012 adopting a non-linear perspective. Specifically, we employ the smooth transition regression approach to explore the scope for non-linear fiscal adjustments of primary surpluses in response to the accumulation of debt. The empirical results show the occurrence of a significantly positive reaction of primary surpluses to debt when the debt-GDP ratio exceeded the trigger value of 110 percent. The after-threshold positive response implies that the path of Italy's fiscal policy is sufficiently consistent with the intertemporal budget constraint.

**Marina Zannella, Alessandra De Rose**

### ***Transferring time and money through the state and the family. An analysis for Italy before and after the beginning of the economic crisis***

The main societal and demographic changes occurred in the last decades have brought to awareness that social policies need to be rethink on the basis of the new emerging social needs and risks, among which employment insecurity, work-family reconciliation, special needs of the frail category of the old and the oldest-old. The need for reforms of the welfare system has been reinforced by new concerns on the

sustainability and equity of the existing generational and gender contracts arisen from the recent emergence of a widespread economic recession and financial crisis. Future pensioners cohorts are unlikely to experiment present pensioners cohorts' levels of lifetime assets, either through individual initiative or through the public redistributive function; increasing unstable and poorer families will reduce their abilities to sustain young ages.

Our aim is to deepen the understanding of the interaction between population age structure, the economy and the welfare system in Italy. Intergenerational transfers can take place through the state and through the family. Public transfers consist of cash benefits or services (e.g. health, education), whereas resources can be transferred within the family both in the form of money and time. This research analyses both monetary and time transfers, adding a gender dimension to the analysis of intergenerational transfers. Using the National Transfer Accounts (NTA) methodology, micro-data from different surveys and macro-data from administrative data sources, we estimate sex-specific age profiles of monetary and time production, consumption and transfers for three years: 2003, 2008 and 2014. The time comparison can help us to shed light on the implications of the economic turmoil on the generational and gender contract.

## ***Statistical methods and problems in socio-economic research***

discussant: Fabrizio Solari (Istat)

**Clara Grazian**

### ***Approximate Bayesian computation for copula models***

The concept of dependence is crucial in multivariate analysis. One way to study the dependence among the variables in the analysis is using copula models. A copula is a flexible probabilistic tool that allows the researcher to model the joint distribution of a random vector in two separate steps: the marginal distributions and a copula function which captures the dependence structure among the vector components. Major areas of application include econometrics, geophysics, climate prediction, genetics, actuarial science and finance. From a statistical perspective, while many techniques exist for estimating the parameters of a univariate distribution and then the first step may be quite simply achieved, deriving a reliable estimate for the parameters of the copula function and hence of the dependence structure is a complex task, especially in high dimensional settings, even if it is crucial in multivariate analysis. In our work we consider the general problem of estimating some specific quantities of interest of a generic copula (such as, for example, tail dependence index or Spearman's index) by adopting an approximate Bayesian approach. In particular, we discuss the use of the BCEL algorithm, based on the empirical likelihood approximation of the marginal likelihood of the quantity of interest.

**Maria Felice Arezzo, Giuseppina Guagnano**

### ***An econometric model for undeclared work and its detection***

Tax evasion is a matter of huge concern for all European Member States as it affects all of them. It undermines the public finance of a State and it can lead to a very severe inefficient resource allocation. It is therefore very important to understand which are the mechanisms underlying the decision to not comply. We focus on a particular facet of tax evasion: undeclared work. We use microdata on audits and link them to a vast set of firms characteristics, mainly related to the economic, financial and structural dimensions. We develop a statistical model, which can cope with the main methodological issues arising from the fact that we use data on audits.

**Dario Briscolini, Brunero Liseo, Andrea Tancredi,†Gauri S. Datta (University of Georgia, USA)**

### ***Bayesian estimation of a population total under linkage uncertainty***

Given a finite population suppose we want to estimate the total of a quantitative variable  $Y$ . We observe a first dataset where information about a sample of size  $n_A$  is available for  $Y$  and other variables  $(X_1, X_2, \dots, X_k)$ . Further we observe a second dataset consisting of  $n_B$  units where we observe variables  $(X_1, X_2, \dots, X_k, Z)$ , where  $Z$  is the potential covariate of interest for  $Y$ . We also assume that the two samples are independent and the overlapping between them is unknown.

We use record linkage techniques and propose a bayesian hierarchical model to produce a posterior distribution for the total of Y under several different hypotheses. The results are compared with the existing classical solutions based on GREG estimators.

†Corresponding Author: [dario.briscolini@uniroma1.it](mailto:dario.briscolini@uniroma1.it).

**Serena Arima, Silvia Poletti**

***Unit level small area model with covariates perturbed for disclosure limitation***

Small area estimation deals with the problem of estimating area level aggregates, when the sampling design is not guaranteed to produce sufficiently large subsamples for all areas of interest. Direct survey estimates may be unreliable and improved estimates can be obtained using mixed effects regression models that link the small areas and borrow strength from similar domains. We focus on small area model in which covariates are measured with error. We consider the situation in which errors in covariates are artificially introduced by a mechanism of disclosure protection of the respondents. Statistical disclosure control (SDC) is commonly applied to prevent reidentification of respondents. An area model that includes auxiliary variables perturbed by disclosure limitation methods has been proposed recently. However, in a disclosure limitation context unit-level models arise more naturally since the perturbation is usually performed at the unit-level. We extend the aforementioned model as a unit-level model: we investigate the performance of the model in estimating the regression parameters and predicting the small area means. We also study the model capability in predicting the true value of the perturbed variables for each unit in order to reidentify respondents.

***Langue et discours spécialisés multilingues***

discussant: Oreste Floquet (Dipartimento Studi europei, americani e interculturali, Sapienza)

**Antonella Leoncini Bartoli**

***Valeurs rhétoriques, pragmatiques et argumentatives de la répétition en traduction des langues de spécialité: le cas des versions multilingues des documents de la Commission européenne dans le domaine des nouvelles technologies de l'information***

La langue et le droit, systèmes fortement structurés et en permanente évolution, recourent tous deux à la répétition sous diverses formes. Il s'agira dans cette présentation d'une recherche en cours d'observer et d'analyser la répétition lexicale en langue spécialisée à la fois dans un corpus de guides destinés à la rédaction des textes dans le cadre de l'Union européenne et dans un échantillon de documents législatifs multilingues portant sur le domaine spécifique des technologies de l'information.

**Marie-Pierre Escoubas-Benveniste**

***La communication financière dans la presse économique: étude comparée italien-français***

L'obiettivo della ricerca è di evidenziare le scelte terminologiche nonché "stilistiche" operate all'interno del dominio economico, attraverso un determinato genere testuale, ossia la comunicazione economica-finanziaria a scopo informativo/divulgativo, così come avviene nella stampa economica. La ricerca verterà su due campioni testuali rispettivamente in lingua italiana e francese, omogenei dal punto di vista socio-linguistico, raccolti a partire dai siti di due testate nazionali: "Il Sole 24 ore" e "Les Echos". Si articolerà in due fasi distinte: in un primo tempo, procederò all'analisi intralinguistica delle scelte espressive e dei tratti di ordine lessicale e terminologico evidenziati nei due corpora specialistici; in un secondo tempo confronterò i risultati ottenuti nella fase precedente in modo da far emergere eventuali somiglianze e differenze linguistiche mostrate dai due campioni. La mia ipotesi di ricerca è che l'approccio comparativo se effettuato al termine di un'analisi quantitativa e qualitativa accurata, consente al linguista di mettere a fuoco i fatti linguistici e fenomeni socio-linguistici che accomunano ma anche caratterizzano – oltre alla specificità della lingua intesa come idioma – un particolare genere testuale condizionato da fattori extralinguistici, quando viene attualizzato all'interno di due comunità linguistiche distinte.

***Knowledge dissemination in the specialized fields of health, finance and the law: recontextualization through language and discourse***

discussant: Iolanda Plescia (Dipartimento di Studi europei, americani e interculturali, Sapienza)

**Ersilia Incelli**

***A linguistic analysis of 'spin' in health news reports in English language media***

The media play a central role in informing the public about new discoveries in medical research, however a number of recent studies have pointed out the variable quality of many health stories in mainstream media, drawing attention to common flaws in health news reporting, for example, exaggerated estimates of the benefits, failure to identify unbiased expert sources, exaggerated significance of the research. The overall aim of this study is to contribute to this issue, regarding 'distorted' information or spin, by investigating science news genre, taking a genre analysis approach to textual exploration, with a view to comparing three sub-corpora of collected texts: one consisting of online media texts (namely online newspapers), a second corpus consisting of medical research abstracts in which scientists first report their results, and the third consisting of press releases issued from scientific institutions, (e.g. pharmaceutical companies).

**Chiara Prospero Porta**

***Comparative mechanisms and relations in the dissemination of institution-centred financial knowledge***

This contribution examines the discursive shaping of some EU member states' annual financial reports, comparing them with those issued by the European Central Bank, from 2010 to the present day. The investigation of the different relationships between transfer of knowledge, written discursive formulation and reformulation procedures may lead to divergent realizations of financial performance and of credible institutional identities in the European intercultural space. In particular, the study analyses relevant linguistic strategies such as narrative, evaluation and legitimation techniques, used in the genre of financial reporting to diachronically/synchronically compare banking performance, likely achievements or failures and therefore legitimate institutional identity and avoid public blame. The analytical focus of comparison and contrast ranges over several parameters: the degree of variation and variability of reporting at a national state level; the degree of convergence and divergence between these and those of the ECB; the diachronic perspective, isolating and tracking trends and developments in this discourse field as a whole.

**Judith Turnbull**

***Communicating and re-contextualising legal advice online***

This study will examine how legal knowledge is transferred from expert to non-expert in a selection of British institutional websites. As high costs and restrictions on legal aid in the UK are making it much more difficult for many people to be able to afford legal advice, people are naturally turning to the Internet for information. The research will make a comparative analysis of different types of websites dealing with divorce, a legal issue that involves a large number of people nowadays and cuts right across the population, regardless of social class, age, educational level and ethnic group. The corpus includes institutional, professional or community websites and the analysis will identify the strategies adopted to re-conceptualize the information and communicate effectively with the reader(s), in view of the complexity of legal discourse and its technical content.

## Recent development in dynamic economic models

discussant: Roy Cerqueti (Università di Macerata)

**Tiziano De Angelis (University of Leeds), Gabriele Stabile**

### **Optimal timing of an annuity purchase: a free boundary analysis**

Life annuities provide a long-life income stream that helps individuals to manage the longevity risk. Locating the optimal age (time) at which to purchase an irreversible life annuity is a problem that has received considerable attention in the literature over the past decade. (see [1],[2],[3]).

Intuitively, one might think that individuals should annuitize their wealth in case their financial investments performs poorly, due to the fear that the performance might become even worse. An alternative reasoning suggests that, in order to have an acceptable annuity payment, individuals should switch to annuities if the financial performances are high enough. This paper aims at investigating the annuitization problem with a rigorous mathematical analysis.

Assuming a setting similar to Hainault, we aim at studying this problem with a rigorous mathematical analysis. From a mathematical point of view, such problem is formulated as a continuous time optimal stopping problem. The optimal time of the annuity purchases depends both on the individual's wealth and life expectancy. It is characterized as the first time the individual's wealth crosses an unknown boundary, that divides the time-wealth plane into the so called continuation and stopping regions (where it is optimal respectively to postpone or immediately purchase an annuity). We study the regularity of this boundary, and we prove that it solves an integral equation of Volterra type.

References

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**Stefano Patri**

### **Accidental degeneracy in a differential eigenvalue problem: a clarification in terms of ladder operators**

We consider the linear, second order, Schrödinger-type differential operator

$$\mathcal{L} := -\frac{1}{2}\nabla^2 + \frac{r^2}{2} \quad (1)$$

in the Hilbert space

$$\mathcal{H} = \left\{ f \in L^2(\mathbb{R}^3) \cap C^2(\mathbb{R}^3) : \lim_{r \rightarrow \infty} f(x, y, z) = 0 \right\},$$

Where  $\nabla$  denotes Laplacian operator

$$\nabla^2 = \frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2} + \frac{\partial^2}{\partial z^2}$$

and  $r$  the norm of the position vector  $\mathbf{r} = (x, y, z)$

It is well-known that the eigenvalue problem

$$\left[ -\frac{1}{2}\nabla^2 + \frac{r^2}{2} \right] f(x, y, z) = \lambda f(x, y, z)$$

defined on  $\mathcal{H}$  has eigenfunctions  $f(x, y, z)$  depending on three parameters, denoted by  $n, l, m$ , while the eigenvalues  $\lambda$  depend on the parameter  $n$ , only, and then one says that the spectrum of the partial differential operator  $\mathcal{L}$  in the (1) has a degeneration.

The independence of  $\lambda$  from the parameter  $m$  is called natural degeneracy and is not surprising because it is related to the rotational invariance of the operator  $\mathcal{L}$ .

The so-called accidental degeneracy of the partial differential operator  $\mathcal{L}$  consists of the independence of its eigenvalue  $\lambda$  from the parameter  $l$  and is related to the particular form of the potential term  $r^2/2$  in the operator  $\mathcal{L}$ .

In my talk, a clarification of this accidental degeneracy of the operator  $\mathcal{L}$  will be given in terms of some so-called ladder operators.

**Arsen Palestini, Maria Caterina Bramati, Mauro Rota**

***Effects of law-enforcement efficiency and duration of trials in an oligopolistic competition among fair and unfair firms***

Building on differential game theory involving asymmetric agents, an oligopoly game between two distinct groups of firms is analyzed and solved under open-loop information. One group develops Research & Development to reduce its marginal production costs and behaves fairly, whereas the other one violates intellectual property rights of the rival, using the stolen technology to reduce its own marginal costs. We investigate the effects of law enforcement in this setup, by discussing the appropriate fine to be determined and the profitability of unfair behaviour. Finally, we assess how the duration of related trials can affect efficiency of enforcement policy.

The paper is downloadable in its final form from the website: <http://link.springer.com/article/10.1007/s10957-016-0866-5>.

***EU and national policy in the wake of global changes***

discussant: Ferruccio Pastore (Forum internazionale ed europeo di ricerche sull'immigrazione - FIERI)

**Federico Martellozzo**

***Land consumption vs land reclamation? Economic and ecological implications of the rural-urban competition for land***

The uncontrolled spread of the built up environment into the surrounding rural and natural land, and the consequent increasing urbanites' demand for natural resources are among the most important causes of the dramatic consequences of global environmental change in many parts of the world. This study investigates soil consumption due to urbanization in the last decades in Italy, which has undergone relevant urban expansion, although not coupled by a comparable population growth, thus suggesting that such degree of urban expansion may be unjustified. Besides it aims also at presenting different forecasts for soil consumption, loss of agricultural potential, and increase in energy demand for the coming future. The methodological framework features past trend data analysis coupled with modelled projections; the data used is a fusion of archived thematic maps, classified satellite imagery, census data, and forecast data from cellular automata model (SLEUTH). The authors analysed urban and population growth through the evolution of spatial explicit data over time according to 3 scenarios: business as usual, "booming expansion", "fostering conservation". The results of this study provide realistic figures of future land cover change in Italy, estimates which regions are likely more prone to urbanization and where urban growth will likely feature a sprawled pattern. Furthermore it discusses what are the potential risks related to the projected soil and energy demand and how these may be avoided. In conclusion, it aims at providing policy makers with useful tool and information to support and favour resilient and sustainable development.

**Enza Roberta Petrillo**

***Environmental Migrations from Conflict-Affected Countries: Focus on EU Policy Response***

Given the strong evidence that most environmental migration is likely to occur within the Global South, the analysis of this paper and many of its recommendations focus on EU external and humanitarian policies in the field of environmental migration, as well as foreign policy and humanitarian aid and development cooperation programs implemented in conflict-affected countries. The purpose of this paper is to contribute to the environmental migration debate with a multifaceted perspective that takes into account the relationship between climate change, migration and conflict. In doing so, it aims to highlight areas of particular political and geopolitical interest where further EU legal, policy, and humanitarian action is needed. On the basis of the analyzed legal, political, and institutional frameworks and the critical issues raised from the programs implemented in the field, I will indicate areas of political and geopolitical interest for EU external action and humanitarian aid strategy and where further EU policy action is needed.

**Elena Ambrosetti, Eleonora Mussino (Stockholm University), Andrea Monti (Stockholm University)**  
***Policies implication or personal experience? Integration of refugees in France and Sweden***

This paper assesses the integration trajectories of refugees in Sweden and France using two national-level sources of data. The “Trajectoire et Origines” survey of 2008-2009 collects information on immigrants and their descendants in France. The 2010 “Level of Living Survey for Foreign Born Persons and their Children” includes information on resident immigrants in Sweden. Through quantitative analysis based on these two datasets, we will investigate which are the factors that most influence the different spheres of integration of refugees in both countries. We look at economic, social, cultural and demographic indicators of the first generation of refugees. Finally we look at the impact of different national integration policies on the integration of refugees in Sweden and France. Thus, with this contribution we aim to answer to the following research question: Could the observed differences in the integration paths be attributable to national policies or to personal characteristics of the refugees?

**Raffaella Coletti, Filippo Celata, Cesare Di Feliciano**  
***Iniziativa community-based per la sostenibilità e politiche pubbliche***

La presentazione illustrerà lo stato di avanzamento dell'attività di policy analysis prevista nell'ambito del progetto di ricerca europeo TESS ([www.tess-transition.eu](http://www.tess-transition.eu)). L'attività, in corso, prevede la realizzazione di una serie di studi di caso in diversi paesi (Italia, Spagna, Finlandia, Inghilterra, Romania, Germania), al fine di delineare alcuni dei modi con i quali le politiche pubbliche a scala nazionale o locale possono favorire o limitare l'emergere e lo sviluppo di iniziative community-based per la sostenibilità. Dopo aver introdotto lo stato dell'arte della letteratura in materia, si presenteranno le finalità e i contenuti dei diversi casi studio, concentrandosi in particolare sulle indagini condotte a Roma: il ri-utilizzo di spazi pubblici dismessi a fini sociali, e le politiche di regolamentazione e promozione dell'agricoltura urbana.