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## **Address:**

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Date of birth: 8 December 1979

Citizenship: Macedonian

## **Education**

2008-present Ph.D. Student of the International Doctorate in Economic Analysis, Universitat Autònoma de Barcelona

2006-2008 M. Sc on Economic Analysis, Universitat Autònoma de Barcelona, Barcelona, Spain

2004-2006 M. Sc on Stochastic and Financial Mathematics, University of Amsterdam, Amsterdam, the Netherlands

1998-2004 Degree in Theoretical Mathematics, University Ss. Cyril and Methodius, Skopje, Macedonia

## **References**

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## **Research Interest**

Social Choice, Mathematical Psychology, Decision Making, Rationality, Aggregation Theory

## **Teaching**

2011-2012 Mathematics, Universitat Pompeu Fabra

2010-2011 Econometrics II (Catalan), UAB

2009-2010 Econometrics II (Spanish), Economic Growth (Spanish), UAB

2008-2009 Mathematics for Economists I, (Spanish), Macroeconomics I, (Spanish), UAB

2007-2008 Econometrics – master's course, (English), Statistics – master course, (English), UAB

### **Fellowships**

2011-2011, ERC Grant, MOVE, Spain

2009-2010, Doctoral fellowship, Institute for Economic Analysis, CSIC, Spain

2007-2009, Pre-doctoral fellowship I3P, Institute for Economic Analysis, CSIC, Spain

2006-2007, Pre-doctoral fellowship, UAB, Spain

### **Languages**

Macedonian – Native, English, Spanish, Serbian – Fluent, Catalan – Intermediate, French, Croatian –Basic

### **Papers**

#### **“Classifying Finite Populations by their achievements”, PhD Chapter**

Many international organizations categorize populations with respect to their success on several qualities. In this spirit, the United Nations perform country classification relating to their accomplishment on Human Development. For that purpose, the UN combines each country's indicators of Income, Education Level and Life Expectancy into an overall index that represents its achieved Human Development. The idea behind Human Development is enriching people's choices and improving human capabilities. Therefore, the overall index objective is to provide governments with benchmarks for efficient development and motivate them to sustain Human Development by growth on every component. However, the methodology used by the UN allows countries to use trade-offs between different attributes and hence obtain higher level of Development by focusing for instance, on Income growth only. The paper reviews the classification techniques (rules) used when performing population categorization according to different attributes. We extend the standard classification procedures known in the literature and within this new family we characterize those rules that meet our axiom of no trade-offs among different attributes.

#### **“Policy Implicated Human Development Classification”, PhD Chapter**

In this paper, we perform a country classification based on the three components used by the organization of the UN: income, education level and life expectancy. We use a new methodology that does not allow for Trade-Offs among different attributes and does not compare the data from different components. Moreover, we perform a classification into fixed number of classes following the policy recommendations for efficient development given by the UN. In the end, we study the classification variations from 1998 to 2007 obtained by the new methodology, and compare them with the corresponding ones of the UN.

#### **“Representation of Quasi-Transitive Preferences on a Finite Set”, Master Thesis**

We consider a preference relation over a finite set of alternatives that violates transitivity on the indifference part of the relation. Transitivity of the strict part still holds. Since there is no utility function representing these classes of preferences, we derive a correspondence from the set of alternatives to  $\mathbb{R}^n$ , which by coordinate wise comparison recovers the initial preference relation. Moreover, we find an equivalent representation that employs strict set inclusion.

### **Other Work**

Representation of Acyclic Preferences on a Finite Set

Characterization of aggregated acyclic choice rules