# RISIS



RESEARCH INFRASTRUCTURE FOR SCIENCE AND INNOVATION POLICY STUDIES



# MULTILEVEL MODELLING IN HIGHER EDUCATION AND RESEARCH POLICY INTRODUCTION

Lugano, 19th of October, 2020

Benedetto Lepori



## Why this course



- Many empirical settings in research policy and higher education are inherently multi-level:
  - Universities and firms nested within countries
  - Research groups within universities
  - Individuals within research groups
- There is evidence that cross-level effects are indeed important
  - And therefore multi-level methods are required
- Multi-level methods have been rarely used in the community
  - As an outcome of the prevalence of econometric approaches preferring other ways of dealing with nestedness (clustering of SE, country dummies)



## RISIS (www.risis2.eu)



- Developing a data infrastructure on research, higher education and innovation studies
  - Supported by the EU as a long-term initiative
- What RISIS offers
  - Access to datasets (publications, patents, projects, etc.) and development of novel datasets
  - Dedicated services (geocoding, actors' registers)
  - Training and methodological support
  - Indicators for S&T studies
  - Research and policy seminars



## Course objectives



- Provide an introduction to multi-level modeling and its theoretical foundations
- Introduce to statistical models and their implementation in Stata
- Discuss when these methods are useful for our field and understand their strenght and weaknesses
- Practice in designing models, estimating them and interpreting results



### About us



- Lecturers
- Short presentation of participants
  - Your background
  - Interest in the topic
  - Examples of multilevel structures in your research

## Course organization



- Today 19.10 from 9 AM to 4 PM
  - Conceptual bases of multilevel modelling
  - Comparing approaches to multi-level structures
  - Analyzing higher education funding
  - Stata laboratory
  - Preparation of group work
- Group work assignment and discussion slots with instructor
- Monday 26.10, from 9 AM to 1 PM
  - Presentation of results and discussion



## Practical information



#### METHODOLOGICAL COURSE

Applications of multi-level models to research policy and higher education studies

19<sup>th</sup> of October and 26<sup>th</sup> of October 2020

#### MONDAY 19th of October

Morning 9:00-09:15	Introduction to this Webinar Course.
09:15-10:15	Lecture: Conceptual bases of Multilevel Modelling. (Barbara Antonioli Mantegazzini)
10:30-11:30	Lecture: Applications of Multilevel Modelling in Research Policy and Higher Education. (Benedetto Lepori)
Afternoon	
13:30-14:30	Lecture: Multilevel Modelling with STATA. An example. (Barbara Antonioli Mantegazzini)
14:30 -15:15	Lecture: Applications of Multilevel Modelling in Research Policy and Higher Education. (Benedetto Lepori)
15:30 -16:00	Introduction to Group Exercise and Group Planning Session.



## Practical information



#### THURSDAY 22th of October

#### Afternoon

A midweek virtual intermediate discussion slot to help and support in the group exercises is scheduled from 4 p.m. – 6 p.m. (about twenty minutes for each group).

#### MONDAY 26th of October

#### Morning

9:00-11:45 Group Presentations and discussion.

12:00-12:30 Closing Remarks and Recap.

(Benedetto Lepori)



## Working Groups

	SURNAME	NAME	AFFILIATION	Country
	1 Acciai	Claudia	University of Copenhagen	Denmark
	2 Andreadakis	Zacharias	Western Norway University of Applied	Norway
	3 Cai	Xiaojing	Zhejiang University	China
	4 Di Leo	Simone	La Sapienza Roma	Italy
	5 Doerffer	Nadine	Leibniz Center for Science and Society (LCSS)	Germany
	6 Ferrándiz	Esther	University of Cádiz	Spain
	7 Gerganov	Alexander	Bulgarian Academy of Sciences	Bulgaria
	8 Haas	Christina	University of Luxembourg	Luxembourg
	9 Ilieva-Trichkova	Petya	Bulgarian Academy of Sciences	Bulgaria
	10 Ivleva	Daria	Indiana University, Bloomington	USA
	11 Jin	Seonmi	Indiana University, Bloomington	USA
	12 Klim	Zack	New York University	USA
	13 Kroher	Martina	Leibniz Center for Science and Society	Germany
	14 Leon	Maritza	Complutense University of Madrid-Spain	Spain
	15 Li	Huan	The University of Hong Kong	Hong Kong
	16 Lozano	Martin	UDEM	Mexico
	17 Mihut	Georgiana	Economic and Social Research Institute	Ireland
	18 Moradi	Shima	National Research Institute for Science Policy	Iran
	19 Mwaura	Samuel	University of Strathclyde	UK
	20 Nakano	Silvia	Université de Montréal	Canada
	21 Oelker	Stefanie	Leibniz University Hannover	Germany
	22 Okhovati	Maryam	Kerman University	Iran
	23 Pineda	Pedro	Deutsches Zentrum für Hochschul- und Wissens	•
	24 Püttmann	Vitus	Leibniz University Hannover	Germany
	25 Quaglia	Giammarco	·	Italy
			National Research University Higher School of	
	26 Shcheglova	Irina	Economics	Russia
	27 Souza	Daniel	University of Turin	Italy
	28 Stucke	Katharina	Leibniz University Hannover	Germany
	29 Szabo	Melinda	European Quality Assurance Register for Higher Ed	
	30 Tsivinskaya	Angelika	European University at Saint Petersburg	Russia
10.0 : 1	31 Wakhungu	Phoebe	Indiana University, Bloomington	USA
18 Octobe	32 Zacharewicz	Thomas	University of Seville	Spain







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## THANK YOU!

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