SUMMER SCHOOL

Relational Spatial Analysis

12.–15.09.2022

DFG
Deutsche
Forschungsgemeinschaft

Universität
Potsdam

Technische
Universität
Berlin

SFB 1265
Re-Figuration
von Räumen

université
PARIS-SACLAY

Université
franco-allemande
Deutsch-Französische
Hochschule

Organisers: Séverine Marguin, Christian Schmidt-Wellenburg, Hannah Wolf

Space and spatial relations have gained importance in recent and current research projects, beyond the metaphorical disciplinary borders of (human and social) geography. The once dominant notion of territory as 'container space' has long been replaced by an understanding of space as a relational and dynamic phenomenon, both constituted by and through social practices and relations as well as having structural effects on such practices and relations. A diverse variety of social sciences, such as sociology, political science, communication studies, social and human geography, as well as gender, migration and border studies, acknowledge and employ this understanding of relational space. However, there is no consensus on how to analyse refigurations of socio-spatial processes employing corresponding methodologies and methods. The summer school therefore offers two such relational methodologies – Geometric Data Analysis (GDA) and Social Network Analysis (SNA) – and aims at equipping participants with the basic skills to apply them in their own research projects. The main goal is to deepen methodological knowledge as well as practical methodical competence in relational analysis of spatial phenomena and to support participants in integrating either methodology in their research designs. Additionally, we aim at building a community of researchers interested in relational spatial analysis and to further the exchange of young researchers using relational methods across borders and disciplines in the European scientific space.

The statistical paradigms of GDA and multiple correspondence analysis (MCA) were developed in France (Benzécri et al 1973, Le Roux/Rouanet 2004) and have only in recent times drawn attention from beyond (an exception are Blasius/Greenacre 1998). The method is now applied in multiple settings and has proven to be a fruitful alternative to traditional ways of modelling data, combining explorative and hypothesis guided approaches. In addition, it can be combined with qualitative research methods on different levels to quantify, further probe and visualize research results. Examples of the application of GDA include the analysis of how discursive statements, worldviews, beliefs and other positionings are rooted in social spaces and fields (Lebaron 2000; Schmidt-Wellenburg 2017), as well as the reconstruction of cultural, material and spatial social structures (Blasius/Winkler 1989; Blasius/Mühlichen 2010; Savage 2015; Schmitz 2009, 2016; Schmitz et al. 2017).

SNA is widely used and continuously developed (Fuhse 2018; Heiberger/Riebling 2016; Bidart/Degenne/Grossetti 2011; Mercklé 2011). Like GDA, SNA is also a quantitative method, which is also applied in mixed-methods and qualitative social research (Herz et al. 2015; Hollstein 2010). Furthermore, visualizations are an integral part of network analytical procedures (Krempel 2005). SNA has been widely used in different research areas, amongst others in the field of social inequalities (Fuhse 2008), discourse analysis (Basov/Breiger/Hellsten 2020; Fuhse 2021), and global hierarchies an (Gülzau et al. 2016; Mau et al. 2015), and is a source of inspiration for more general theoretical elaborations in relational sociology (Fuhse 2016).

MONDAY

10.00 – 12.00 am

Joint Lecture I: Notions of Space in Social Sciences
Séverine Marguin, Hannah Wolf, Christian Schmidt–Wellenburg

12.00 – 13.30 pm

Lunch Break

13.30 – 15.00 pm

Dimensionality Reduction Using PCA and MCA
Brigitte Le Roux

Relationality and Social Network Analysis
Jan Fuhse

15.00 – 15.30 pm

Coffee Break

15.30 – 17.00 pm

Practical Lecture I: Introduction to SPAD
Philippe Bonnet

Practical Lecture I: Introduction to RStudio
Oliver Wieczorek

from 17.00 pm

Get together

TUESDAY

10.00 – 12.00 am

Bourdieu's notion of Field combined with Benzécri's GDA: Social Reality as Space
Frédéric Lebaron

Centrality and Structural Holes: Fundamental Network Concepts
Jan Fuhse, Oliver Wieczorek

12.00 – 13.30 pm

Lunch Break

13.30 – 15.00 pm	Applying MCA and CSA to questionnaires Brigitte Le Roux	Ego-centered networks Jan Fuhse
15.00 – 15.30 pm	Coffee Break	
15.30 – 17.00 pm	Practical Lecture II: Running MCA in SPAD Philippe Bonnet	Practical Lecture II: Community-Detection Oliver Wieczorek
17.00 – 17.45 pm	Personal Advice by lecturers	

WEDNESDAY

10.00 – 12.00 am	Joint Lecture II: Relational Methods and Space Frédéric Lebaron
12.00 – 13.30 pm	Lunch Break

13.30 – 15.00 pm	Euclidean Clustering in GDA Brigitte Le Roux	Social Network Theories Jan Fuhse
15.00 – 15.30 pm	Coffee Break	

| 15.30 – 17.00 pm | Practical Lecture III: Clustering and dressing graphs in SPAD
Philippe Bonnet | Practical Lecture III: Network visualization
Oliver Wieczorek |

17.00 – 17.45 pm

Personal Advice
by lecturers

THURSDAY

10.00 – 12.00 am

Joint Lecture III: Dialogue of GDA and SNA
Ronald Breiger

12.00 – 13.30 pm

Lunch Break

| 13.30 – 15.00 pm | Statistical Inference in GDA
Brigitte Le Roux | Network Mechanisms
Jan Fuhse |

15.00 – 15.30 pm

Coffee Break

| 15.30 – 17.00 pm | Practical Lecture IV: Specific and Class-Specific Analysis
Philippe Bonnet | Practical Lecture IV: Network Simulation with Exponential Random Graph Models (ERGM)
Oliver Wieczorek |

17.00 – 17.45 pm

Personal Advice
by lecturers

17.45 – 18.00 pm

Coffee Break

18.00 – 19.30 pm

Discussion
Potential and challenges of GDA and SNA for spatial research