Call for Applications for Doctoral Students and Junior Researchers

Summer School "GDA and SNA -- relational spatial analysis"

12.-17. September 2022

Technische Universität Berlin

Organised by Séverine Marguin, Hannah Wolf, and Christian Schmidt-Wellenburg

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 The once dominant notion of territory as 'container space' has long been replaced by an understanding of space as a relational and dynamic phenomenon, both constituted by and through social practices and relations as well as having structural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 modeling 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 und Winkler 1989; Blasius und 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).

Schedule and Organisation

The **first part** of the summer school (12.-15. September 2022) will be dedicated to equipping participants with the basic skills needed to apply GDA or SNA in their own research projects. It is organised in two tracks (GDA ***or*** SNA), whose daily schedule includes both *sociological and statistical lectures* as well as *practical courses* on the hands-on application of software (SPAD and R). Additionally, *open work sessions and one-on-one consultations* are offered to foster the exchange between participants, organizers and teaching staff, providing the opportunity for participants to analyze their own data and to discuss their research projects (detailed information in the attached schedule).

The **second part** (16.-17. September 2022) is a workshop in which invited scholars will present their own research and discuss possibilities and pitfalls of applying either or both methodologies in relational spatial analysis. Two questions will be central for these methodological discussions: *First*, how are we to account for geographic and material dimensions of space in quantitative analyses beyond the mostly metaphorically used notion of social space? *Second*, how can we move beyond merely documenting the territoriality of space to taking the spatiality of the sociality and social processes into account? The two-day workshop will give participants of the summer school the chance to get first-hand insights into current research projects using GDA and SNA, engage in current debates over relational spatial analysis, and discuss their own ideas and projects with leading researchers in the field. Participants are free to either join the workshop or only take part in the summer school.

Teaching staff for the summer school are **Brigitte LeRoux, Frédéric Lebaron and Philippe Bonnet** (for GDA), and **Jan Fuhse and Oliver Wieczorek** (for SNA).

Keynote speakers at the workshop include **Frédéric Lebaron** (Université Paris Saclay), **Ronald Breiger** (University of Arizona), and **Mike Savage** (London School of Economics).

How to apply

This call for applications addresses doctoral candidates and post-doctoral researchers from the diverse range of social sciences whose research focuses on or includes issues of space and spatialities.

In your application (3 pages max.), please include:

- a motivational letter with a brief description of your current research project, and stating your preference to participate ***either*** in the GDA ***or*** the SNA track, and
- your CV.

Please send your applications to relational.spatial.methods@gmail.com **until the 20th of June 2022 => extended until the 27th of June 2022**. Fee for the Summer School is 100€. Traveling expenses and accommodation costs of participants are not covered.

In case you have any queries, please do not hesitate to contact the organisers severine.marguin@tu-berlin.de hanwolf@uni-potsdam.de christian.schmidt-wellenburg@uni-potsdam.de

Schedule Summer School "GDA and SNA – Relational Spatial Analysis" 12.-15.9.2022

Day 1

	Track 1: Geometric Data Analysis	Track 2: Social Network Analysis
10-12 am	**JOINT LECTURE I: Notions of Space in Social Sciences** by Séverine Marguin, Hannah Wolf, Christian Schmidt-Wellenburg	
12-1:30 pm	*LUNCH BREAK*	
1:30-3 pm	**Dimensionality reduction using PCA and MCA** by Brigitte Le Roux	**Relationality and Social Network Analysis** by Jan Fuhse
3-3:30 pm	*COFFEE BREAK*	
3:30-5 pm	PRACTICAL LECTURE I: **Introduction to SPAD** by Phillipe Bonnet	PRACTICAL LECTURE I: **Introduction to RStudio** by Oliver Wieczorek
from 5 pm	**ROUNDTABLE and DRINKS** Space in Theory and Methodology	

Day 2

10-12 am	**Bourdieu's notion of Field combined with Benzécri's GDA: Social Reality as Space** by Frédéric Lebaron	**Centrality and Structural Holes. Fundamental Network Concepts** by Jan Fuhse
12-1:30 pm	*LUNCH BREAK*	
1:30-3 pm	**Applying MCA and CSA to questionnaires** by Brigitte Le Roux	**Ego-centered Networks** by Jan Fuhse
3-3:30 pm	*COFFEE BREAK*	
3:30-5 pm	PRACTICAL LECTURE II: **Running MCA in SPAD** by Phillipe Bonnet	PRACTICAL LECTURE II: **Community-Detection** by Oliver Wieczorek
5-5:45 pm	**PERSONAL ADVICE** by lecturers	

Day 3

10-12 am	**JOINT LECTURE II: Relational Methods and Space**	
12-1:30 pm	*LUNCH BREAK*	
1:30-3 pm	**Euclidean Clustering in GDA** by Brigitte Le Roux	**Network Mechanisms** by Jan Fuhse
3-3:30 pm	*COFFEE BREAK*	
3:30-5 pm	PRACTICAL LECTURE III: **Clustering and dressing graphs in SPAD** by Phillipe Bonnet	PRACTICAL LECTURE III: **Network visualization** by Oliver Wieczorek
5-5:45 pm	**PERSONAL ADVICE** by lecturers	
8 pm	*DINNER with all participants*	

Day 4

10-12 am	**JOINT LECTURE III: Dialogue of GDA and SNA** by Ronald Breiger	
12-1:30 pm	*LUNCH BREAK*	
1:30-3 pm	**Statistical inference in GDA** by Brigitte Le Roux	**Social Network Theories** by Jan Fuhse
3-3:30 pm	*COFFEE BREAK*	
3:30-5 pm	PRACTICAL LECTURE IV: **Specific & Class-Specific Analysis** by Phillipe Bonnet	PRACTICAL LECTURE IV: **Network Simulation with Exponential Random Graph Models (ERGM)** by Oliver Wieczorek
5-5:45 pm	**PERSONAL ADVICE** by lecturers	
5:45-6 pm	*COFFEE BREAK*	
6-7.30 pm:	**DISCUSSION** about the potential and challenges of GDA and SNA for spatial research	