

PhD position on reliable modelling of social network data (1.0 FTE) (V25.0166)

Job description

Do you want to contribute to groundbreaking research that pushes the boundaries of science? Are you looking for a PhD position in which you can turn your curiosity into concrete research results and a dissertation? In that case, the position of PhD in social science at the University of Groningen (UG) might just be what you are looking for!

As a PhD candidate in reliable modelling of social network data, you will have the opportunity to develop your own insights, model data, and share your findings with both scientific colleagues and partners from professional practice worldwide. Under the guidance of your (co) supervisors and together with a motivated team, you will work on meaningful solutions and contribute to the future of your field.

In the social and behavioural sciences, social network data are typically collected by asking a predetermined group of individuals to nominate others based on a certain type of social relationships (e.g., who their friends are) or directed social interactions (e.g., who they gave advice, or shared a material item with, during a specific time period). Existing statistical models for social network structure lack the possibility to incorporate bias and higher order features in order to reliably estimate multiplex social networks (i.e., simultaneous estimation of multiple different social networks). The core aim of this project will be to develop more flexible statistical models for social network analysis that estimate and account for a suite of relevant measurement biases associated with self-reported social network data, that can accurately estimate higher-order features of social networks, and that can estimate multiple different networks simultaneously. These models are empirically motivated, and they will be validated on—and used to answer important empirical questions about friendship using—available empirical data.

Why would you want to apply for this position?

1. To make an impact: in this role, you will directly contribute to scientific insights that address societal issues. Your research will not only translate into publications, but also into concrete solutions, ensuring a tangible impact.
2. Personal development: you will have the opportunity, with the support of experienced scientists, to develop yourself into an expert. This combination of research and teaching offers plenty of opportunities for professional and personal growth.

As a PhD candidate, you will perform the following duties

- You will conduct research that results in a dissertation and is consistent with the goals and requirements of the project.
- You will organise and conduct data collection for the subprojects.
- You will publish research results in international scientific journals.
- You will present the research to a wide audience of both domestic and international fellow scientists and partners from the professional field.

- You will collaborate with fellow scientists in the larger project.
- You will contribute to a limited number of teaching activities in the Department of Sociology, such as working groups and guest lectures.

This is where you will be working

The University of Groningen ranks among the top European universities and is internationally oriented. The university is socially engaged and actively involved in its environment. In a wide range of disciplines, researchers and teachers practice their disciplines out of scientific passion. Everyone is empowered to do their best. The talents, ambitions and performance of the 34,000 students and 6,500 employees of the UG are stimulated as much as possible.

The Faculty of Behavioural and Social Sciences is strong in research and teaching on human behaviour, thinking, learning, and coexistence. We work on social issues and problems that people experience in everyday life. Individual and societal resilience and how to increase it are central to our work. We focus on the topics of migration, environment and climate, health, parenting and education, the protection of vulnerable minorities, and sustainable partnerships. Over 650 employees work at the Faculty of Behavioural and Social Sciences.

More information about the faculty can be found at the link <https://www.rug.nl/gmw/>

The PhD candidate will be embedded in the statistical models for the social network analysis group at the Department of Sociology. The supervision team consists of Dr D.J. Redhead and Prof. M.A.J. van Duijn from the Department of Sociology, and Dr L. Koopman from GION education/research at the Nieuwenhuis Institute for Educational Research. The statistical models for social network analysis group consists of an interdisciplinary team of applied statisticians and methodologists who develop and apply statistical models to diverse social science data, with particular focus on modelling social networks. GION education/research aims to describe, explain and improve learning and developmental processes and educational policies. By conducting practice-oriented, policy-oriented, and fundamental research, we help schools, teachers, policymakers and other educational professionals to make their education more effective. The PhD candidate will become a member of a national graduate school.