



PhD Student, Analysis of Mobility and Activity Data

The GIScience Center at the Department of Geography jointly with the University Research Priority Program (URPP) "Dynamics of Healthy Aging" at the University of Zurich, invites applications for

1 PhD Student

to join our interdisciplinary research team. The GIScience Center at the Department of Geography hosts several research groups working on diverse topics including movement analysis, digital cartography and mobile systems, language and space, geographic information retrieval, digital terrain modeling, uncertainty modeling, geovisual analytics, and spatial cognition. The focus of research at the URPP are the psychological, behavioral and medical foundations underlying the maintenance of health and quality of life in older adulthood.

The PhD student position will be embedded within a joint project to study real-world space use, mobility, and motor activities in older adults, which are seen as central predictors of maintaining physical and cognitive health into old age. Using mobility, activity and context data collected from multiple sensors on a large number of older age test persons, we combine methods of dynamic space use analysis adapted from Geographic Information Science (GIScience) with the longitudinal methodology of gerontology.

The position will entail carrying out data-oriented computational research, with a focus on adapting or developing new methods of movement analysis.

Core Tasks:

- carry out the research on dynamic space use and its relation to environmental variables
- analysis of mobility and activity patterns.

Requirements:

We seek a highly motivated, original thinker, with a desire to develop a research career and with a passion for science. We further expect:

- an excellent final degree (master degree or equivalent) in a relevant field, such as GIScience, computer science, geography or geomatics (completed before appointment),
- knowledge of advanced spatial analysis, spatial statistics, and geometric algorithms,
- basic programming skills, as well as a willingness to develop these,
- very good standard of written and spoken English. Fluency in, or a willingness to learn, one or more of Switzerland's national languages would be an asset,
- autonomous and self-reliant working style,
- high motivation to work collaboratively within a team, and
- a genuine interest in interdisciplinary collaboration.

We offer excellent working conditions, a stimulating environment and Zurich's high quality of life.

The PhD candidate will be supervised by Prof. Robert Weibel and will be a member of the GIS Unit in the GIScience Center (www.geo.uzh.ch/gis).

To apply, send a curriculum vitae, a motivation statement, transcripts, and contact details for two referees (including e-mail addresses) **in a single PDF document with the applicant's name as file name by 1 December 2014** to yvonne.wagener@geo.uzh.ch. For further questions, please contact Robert Weibel (robert.weibel@geo.uzh.ch). The position will start on **01 January 2015**, or as soon as possible thereafter, and is for three years, with an option for an extension of up to four years.