EMPA
Materials Science & Technology

Empa is the interdisciplinary research and services institution for material sciences and technology development of the ETH Domain.

The Laboratory for Air Pollution & Environmental Technology investigates effects of human activity on the atmosphere/climate system by combining state-of-the art measurement techniques and modeling for a healthy and safe environment.

In the research field of air quality we offer a

Postdoc position in statistical modeling of urban-scale air quality based on data from a mobile sensor network

The successful candidate will join a project team from ETH Zurich (Computer Engineering and Networks Laboratory), EPF Lausanne (Artificial Intelligence Laboratory) and Empa, and will work in the inUse project that is funded by the Nano-Tera initiative (http://www.nano-tera.ch). The aim of inUse is to generate urban air pollution maps with high temporal and spatial resolution by statistical modeling of data from a wireless sensor network and geographic information (GIS).

A mobile sensor network providing air quality data with high temporal resolution is operating on top of trams in Zurich, Switzerland (see http://www.opensense.ethz.ch). Such a sensor network has the potential to provide detailed and temporally highly resolved information on the spatial variability of air pollutant concentrations, information that is e.g. needed for estimation of air pollution exposure in a densely populated area. Within the inUse project, we will combine the data from the existing mobile sensor network in Zurich and geographical attributes as available in GIS by statistical modeling such as land use regression.

The successful candidate will perform the data analysis and statistical modeling of the sensor network data as indicated above.

The desired qualifications are: PhD degree in atmospheric and/or climate sciences, physics, computational sciences or a closely related discipline; experience with a higher programming language and/or GIS; interest and knowledge in statistics; fluency in English; good communication skills.

The position is immediately available for one year with options for an extension depending on the availability of funds. We are looking forward to your application including a letter of motivation, your CV, transcripts, a list of publications and the names of 2-3 academic referees.

Applications have to be submitted online at the following web site

http://internet1.refline.ch/673276/0339/++publications++/1/index.html

For information about our research group please visit
http://www.empa.ch/plugin/template/empa/137/*/---/l=2

For further questions about the project or the application procedure please contact
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