We are looking for a highly motivated PhD student

**PhD student in Spatial Statistics/Epidemiology**

**Period:** Fixed-term contract for 3 years, start January 2018 (negotiable)

**Place:** University of Bern, Switzerland

**Apply no later than:** 26th November 2017

It is known that medium to high doses of ionising radiation can cause cancer in children but direct evidence of effects of low dose exposure is still scarce. For a project funded by the Swiss National Science Foundation, the research group Environment & Spatial Epidemiology at the ISPM Bern is seeking two PhD students. The aim of the project is to assess the effects of low dose ionising radiation on cancer risks in children. This PhD project (Spatial Statistics/Epidemiology) will focus on modelling exposure to background radiation in Switzerland. You will use multivariate geostatistical models in a Bayesian framework to predict exposure to terrestrial gamma radiation, cosmic radiation, and radon at all residential locations Switzerland. The model will be based on a large number of measurements made throughout the country. You will also conduct a field survey on radiation exposure and participate in national and multi-national studies of childhood cancer risks and background ionising radiation. The PhD will allow you to gain a broad understanding of spatial statistics and environmental epidemiology, to apply your skills to a research question that has public health relevance and to learn to effectively communicate your results.

**During your PhD you will:**
- Develop geostatistical models to predict exposure to background radiation exposure in Switzerland.
- Conduct a field survey on radiation exposure in children.
- Participate in national and multi-national studies on background ionising radiation and childhood cancers.
- Collaborate with a team of epidemiologists, statisticians and other PhD students.
- Present your results in international meetings and publish them in peer-reviewed journals.

**You have:**
- A university degree (MSc or equivalent) in mathematics/physics/statistics
- Experience in statistical analysis and statistical programming in R
- Strong technical and analytical skills
- A strong interest in applied research
- Fluency in English both written and oral (Knowledge of German or French is an advantage)

**What we offer:**
- Working in a motivated and competent research team
- The possibility to attend courses – a wide range of topics offered ([www.ssphplus-phd.ch](http://www.ssphplus-phd.ch))
- Preparation for a research career in an academic setting (university) or a public health institution
- Enrolment in a graduate school of the University of Bern ([www.gcb.unibe.ch](http://www.gcb.unibe.ch) or [www.ghs.unibe.ch](http://www.ghs.unibe.ch))
- Salary according to the pay scales of the Swiss National Science Foundation for PhD students

For further information on the position advertised, please contact PD Dr Ben Spycher ([ben.spycher@ispm.unibe.ch](mailto:ben.spycher@ispm.unibe.ch)). Please send your application to [hr@ispm.unibe.ch](mailto:hr@ispm.unibe.ch). Applications must be in English and include a curriculum vitae and motivation letter as PDF documents.