



PhD Program between the Freie Universität Berlin (FUB) and the China Scholarship Council (CSC)

Open PhD position at FUB for CSC scholarship candidates 2017

Please note: the PhD position is only offered to Chinese PhD candidates for application in the framework of the FUB-CSC PhD Program.

<u>Department/Institute:</u>	Department of Veterinary Medicine/ Institute for Veterinary Epidemiology
<u>Subject area:</u>	Biostatistics, Statistics, Mathematics, Physics, Computer Science, Bioinformatics
<u>Name of Supervisor:</u>	Prof. Dr. Vitaly BELIK (Mr.)
<u>Number of open PhD positions:</u>	2
<u>Type of the PhD Study:</u>	Full-time or Sandwich-Model (1-2 years)
<u>Project title:</u>	Data-driven research on complex systems
PhD Project description:	

In the group of Prof. Vitaly Belik PhD projects are available in the field of data-driven research of complex systems with a particular focus on epidemiological applications. There are two possible directions for PhD projects.

- 1) Data-driven statistical and computational modeling of specific pathogens and organismal phenomena aimed at understanding their function and possibilities of control. E.g. host-pathogen/parasite population dynamics, dynamics of hormonal household in animals, automated diagnostics of animal health conditions.
- 2) The study of the empirical data on complex systems in the variety of applications connected to epidemiology in a broad sense. These includes analysis and simulation of animal trade and human hospital referral networks in the context of pathogen and antibiotic resistance spread, the analysis of genomic data, as well as information propagation in social media networks.

Language requirements:

PhD study in English is possible, IELTS 6.5 or TOEFL 95 ibt.

Academic requirements:

Potential candidates should hold an MS-degree in physics, mathematics, bio/statistics, bioinformatics, data science, computer science or similar. The ideal candidates should have strong mathematical and computational background or be eager to acquire it, in the following fields: complex networks science, nonlinear dynamics, stochastic processes, statistical analysis and machine learning. Practical experience with programming, preferentially in at least one scripting language such as Python or similar and one high-performance language such as C/C++ or similar are required. The experience with Matlab, Mathematica, and R is welcome. The ability to be a good team player, to conduct scientific research, be passionate about data analysis, and strong proficiency in English is required.

Information of the professor or research group leader:

http://www.vetmed.fu-berlin.de/en/einrichtungen/institute/we16/das_institut/mitarbeiter/belik_vitaly/index.html

Please note:

In a first step the complete application should be submitted to the Beijing Office for evaluation by January 4th, 2017. Please don't contact the professor before. He/She will get in contact with you after having received the complete application in January.