



GEORG-AUGUST-UNIVERSITÄT
GÖTTINGEN

The research group mathematical statistics (Prof. A. Munk) at the Department of Mathematics and Computer Science of the University of Göttingen is seeking to fill in a

PostDoc Position

"Mathematical Statistics in Nanoscale Fluorescence Microscopy"

(Salary group 13 TV-L, 39,8 h/week)

at the interface of mathematical statistics, inverse problems and biophysics. This position is located in a new project A07 "*Statistical Inference for Molecules: How many, when and where?*" of the *Collaborative Research Center 755: "Nanoscale photonic imaging"*, which is a collaboration with the "NanoBiophotonics" lab (Prof. S. W. Hell) at the Max Planck Institute for Biophysical Chemistry. The position is limited for two years initially with the possibility of an extension.

The aim of this project is to exploit the effect of photon antibunching in order to count molecules in sub-diffraction fluorescence microscopy for cell imaging. This allows then to render the distribution of biologically relevant proteins in the sample with nanoscale resolution, which is the ultimate aim in super-resolution microscopy. The successful candidate will develop a statistical model, algorithms to estimate and provide confidence statements for the number of molecules. This will be done in close collaboration with an interdisciplinary team of researchers from nanobiophotonics, mathematical statistics and inverse problems.

We are looking for talented, self-motivated individuals with a strong background in Mathematical Statistics, Inverse Problems, Theoretical Physics, Optics or a related field. Good programming skills and basic knowledge of (bio)physics is desirable.

Please send your application with the usual documents (also in electronic form) until **July 1st, 2015** to Prof. A. Munk, Georg-August-Universität Göttingen, Institut für Mathematische Stochastik, Goldschmidtstr. 7, 37077 Göttingen, email: munk@math.uni-goettingen.de

The University of Göttingen is an equal opportunities employer and places particular emphasis on fostering career opportunities for women. Qualified women are therefore strongly encouraged to apply as they are underrepresented in this field. Disabled persons with equivalent aptitude will be favored.

For further requests please contact Prof. A. Munk or Dr. Frank Werner, Max Planck Institute for Biophysical Chemistry, Research group "*Statistical Inverse Problems in Biophysics*", phone: +49 551 201-1628, email: Frank.Werner@mpibpc.mpg.de

We request that you send us copies of your application documents. We will destroy the documents after a holding period of five months. It will only be returned if a sufficiently prepaid and addressed envelope is enclosed.