Berlin, 22 July 2019
Deadline: 06 September 2019

VACANCY No. 19-65-8

The Physikalisch-Technische Bundesanstalt (PTB) is the National Metrology Institute of the Federal Republic of Germany with scientific and technical service tasks. It furthers progress and reliability in metrology for society, the economy and science.

Department 8.4 "Mathematical Modelling and Data Analysis" and Division 8 "Medical Physics and Information Technology" are looking for a

Scientist in Physics (Theory), Engineering or Applied Mathematics

with a strong background in numerical simulation and uncertainty quantification to carry out research within a European project on "Metrology of automated data analysis for cardiac arrhythmia management (MEDALCARE)" funded as part of the Health call of the European Metrology Program for Innovation and Research (EMPIR).

This position is limited to 3 years. Depending on your personal qualifications, the remuneration can reach up to remuneration group 14 TVöD Bund. You will be employed at our Berlin site.

PTB Department 8.4 in general carries out mathematical research with strong connection to applications and metrology. More information can be found on http://www.ptb.de/cms/de/fachabteilungen/abt8/fb-84.html.

Your tasks:

- Numerical simulations and analysis for the biophysical modelling of cardiac electrophysiology with the goal to generate a representative data base of virtual human ECGs for the testing algorithm for automated ECG analysis, e. g. machine learning
- Quantification and analysis of uncertainties stemming from the underlying models and the biological variability
- Development of criteria to evaluate the virtual ECG data base
- Active collaboration with cardiac simulation groups from university partners in the project and coordination of the data base
- Comparison and calibration of the virtual data base with the existing PTB data base of measured clinical ECGs and cooperation with data analysis specialists
Your profile:

- You have obtained a relevant university degree (German "Diplom" or Master's) including a doctoral degree.
- You have a good track record of scientific publications.
- You have experience with numerical methods, e.g. in modelling cardiac electrophysiology.
- Experience in electrophysiological modelling and basic statistics knowledge are advantageous.
- You are interested in the mathematical analysis and physical modeling of experiments.
- You have excellent communication skills, and you are a team player.
- You are able to carry out autonomous scientific work within a project team
- You have a very good command of English and ability to present results convincingly in spoken and written language.
- You are willing to travel abroad as well as within Germany within the scope of your assignment.

For further information with regard to this position, please contact:

Prof. Markus Bär, Tel.: +49 (0)30 3481-7687, E-Mail: Markus.Baer@ptb.de
or Prof. Tobias Schäffter: Tel.: +49 (0)30 3481-7343, E-Mail: Tobias.Schaeffter@ptb.de

Link to the Department

PTB promotes the professional equality of women and men and is thus especially interested in applications from women.

Within the scope of the official feasibilities, PTB offers flexible part-time work schemes in order to support in particular the compatibility of family and profession.

Disabled persons will be given priority if they have the same occupational aptitude.

Are you interested? Then we are looking forward to hearing from you.
Please use http://www.ptb.de/cms/ueber-uns-karriere/karriere/bms-stellen.html or send us your application to the following postal address:

Physikalisch-Technische Bundesanstalt
Institut Berlin
Reference number 19-65-8
Abbestraße 2-12
10587 Berlin
Germany

Unfortunately, we cannot accept applications sent via e-mail.

The closing date for applications is 06 September 2019.