



**UNIVERSITÀ
DEGLI STUDI
DI UDINE**



TECHNISCHE
UNIVERSITÄT
WIEN
Vienna University of Technology

Position for a PhD student in applied mathematics

Dissertation in technischer Mathematik

University of Udine / TU Vienna

A position for a PhD student (m/f) is available within a cooperation between the University of Udine and TU Wien (University of Technology Vienna). The PhD student will be advised by Prof. Luca Selmi (DIEGM, University of Udine) and Prof. Clemens Heitzinger (Department of Mathematics and Geoinformation, TU Vienna).

The topic of the PhD thesis will be modeling and simulation using **partial differential equations** and stochastic partial differential equations for a recent and a timely application, namely **nanoelectronic biosensors**. The goal is to develop the basic mathematical models and simulation tools to enable theoretic understanding and to further the development of a new technology. The theoretic aspect focuses on transport equations and stochastic equations, while the applied aspect is the simulation of novel nanoscale sensors.

Funding for the position is provided for three years by the University of Udine within the EU Strategy for the Alpine Region (<http://www.alpine-region.eu>). The PhD student will spend a total of 18 months at TU Vienna and a total of 18 months at the University of Udine, where the exact dates spent at the two universities are flexible.

Requirements

We are looking for **excellent and ambitious students** with an interest in (stochastic) partial differential equations and in a timely application such as nanoscale sensors (nanotechnology). The successful candidate also has the programming skills to implement numerical methods (Matlab, Julia, etc.).

Salary

The PhD student will be employed and paid including social and health benefits according to the applicable guidelines. The PhD position is for three years. Funding for conference visits is available.

Applications

Required documents: curriculum vitae, degree certificates, and a transcript (“Sammelzeugnis”). Optional documents: letter of motivation, list of publications, recommendation letters. Please send the documents to Prof. Clemens Heitzinger (Clemens.Heitzinger@TUWien.ac.at). Applications submitted by **August 1, 2016** will receive full consideration.

Inquiries and Further Information

Write to Prof. Clemens Heitzinger (TU Vienna, Clemens.Heitzinger@TUWien.ac.at) or to Prof. Luca Selmi (University of Udine, Luca.Selmi@uniud.it).

Homepages: <http://www.diegm.uniud.it/selmi/> and <http://Clemens.Heitzinger.name/>.