

Doctoral Scholarship
“Feature Extraction from High Resolution Spatial Data Sets”
in the domain of forensic sciences related to archaeology, palaeography and geography

24. February 2014

The Junior Research Group “Forensic Computational Geometry Laboratory” (FCGL) at the Interdisciplinary Center for Scientific Computing (IWR) in cooperation with the Heidelberg Graduate School for Mathematical and Computational Methods in the Sciences (HGS MathComp) offers one doctoral scholarship to improve the understanding of complex material, cultural and social topics by analyzing tangible objects. This vision is aligned with institutional strategy of the Heidelberg University in the framework of the 2nd German Excellency Initiative.



As the FCGL bridges the Computational Science with the Forensic Sciences its main task is the collaborative development of new methods to gather and examine information of the past. This is performed on objects of different size from coins and ceramics to landscapes altered by ancient civilizations. The core tool of the FCGL is the GigaMesh software framework consisting of a modular extensible mesh processing pipeline to achieve the examination on high resolution measurement data provided by different types of 3D-scanners and exploration of contained information.



The successful applicant's task will be the completion of a PhD degree in the scope of computational methods applied to Humanities and/or Life Sciences. An active participation in courses offered at the HGS MathComp and other institutions of the Heidelberg University in respect to the PhD project is recommended. The scholarship is rated at € 1468 per month (tax free) for the PhD research period (3 years). Additional access to travel and publication funding is available.

The candidate must hold a Master's degree in one of the discipline of Computer Science, GeoInformatics, ArchaeoInformatics, Digital Humanities or equivalent. Experience in programming languages like C/C++ and/or GNU Octave is a necessity. Knowledge of OpenGL and/or Qt would be a plus. The language of instruction is English. Proficiency in English is mandatory. An interest in interdisciplinary collaboration is essential.

To apply, send your Curriculum Vitae; academic transcripts; an outline of your dissertation project (2-3 pages) related to the research group; names and contact details of two referees; via Email as ONE PDF to Dr. Hubert Mara (hubert.mara@iwr.uni-heidelberg.de). Questions regarding the scholarship can be directed to the same address.

The scholarship start should be before the winter term 2014/15 and the review of applications will continue until the position is filled.

Heidelberg University is an equal opportunity/affirmative-action employer. In case of equality of qualification and suitability of applicants, the applications made by female researchers will be given preferential consideration. We also encourage and welcome applications from disabled persons.

General information in the web:

IWR: <http://www.iwr.uni-heidelberg.de/>

HGS MathComp: <http://hgs.iwr.uni-heidelberg.de/>

FCGL: <http://www.iwr.uni-heidelberg.de/groups/ngg/People/mara/>