



Faculty/Departement                      Mathematics, Informatics, Natural Sciences/Informatics  
Seminar/Institute                          Signal Processing Group

Universität Hamburg invites applications for a Research Associate in accordance with Section 28 subsection 1 of the Hamburg Higher Education Act (Hamburgisches Hochschulgesetz, HmbHG). The position commences as soon as possible.

It is remunerated at the salary level TV-L 13 and calls for 100% of standard work hours per week.\*

The fixed-term nature of this contract is based upon Section 2 of the Academic Fixed-Term Labor Contract Act (Wissenschaftszeitvertragsgesetz, WissZeitVG). The initial fixed term is three years.

The University aims to increase the number of women in research and teaching and explicitly encourages women to apply. Equally qualified female applicants will receive preference in accordance with the Hamburg act on gender equality (Hamburgisches Gleichstellungsgesetz, HmbGleiG).

### **Responsibilities:**

Associates will be expected primarily to teach and conduct research. The associate will have the opportunity to pursue further academic qualifications, in particular a doctoral dissertation. At least one-third of set working hours will be made available for the associate's own academic work.

### **Specific Duties:**

The candidate will work in the Signal Processing group and will do exciting research on modern methods for speech and audio processing. The focus of the group is on developing novel methods for processing speech and audio signals with applications in speech communication devices such as hearing aids, mobile telephony, and voice-controlled assistants. Typically, the performance of these devices drops drastically when interfering sources, noise, and/or reverberation are present, e.g. in a noisy restaurant or in traffic. The goal of the candidate is to develop novel methods to enable or facilitate speech communication and voice control in such acoustically challenging scenarios. In this context, possible PhD topics include source separation, source localization, speech enhancement and multimodal signal processing. Typical methods include Bayesian estimation, statistical and physical modeling, as well as modern machine learning methods.

The typical tasks of a PhD student include developing and implementing new algorithms, performing experiments to test the methods, writing scientific publications, and traveling to conferences and workshops to present the work. Furthermore, the position includes the

\* Full-time positions currently comprise 39 hours per week.



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responsibility to teach 4 hours/week in the computer science department. We are interested in a highly motivated person who is interested in working with us on cutting edge research in a pleasant working atmosphere.

**Requirements:**

A university degree in a relevant field. Examples are Computer Science, Electrical Engineering, Physics, Mathematics, etc. Good knowledge in signal processing is required as well as good programming skills in Matlab, Python, and/or C++. Knowledge of speech and audio processing, machine learning, and statistics is helpful. Fluent English, spoken and written, and good communication skills are mandatory. Knowledge of German is helpful; we expect the willingness to learn German for non-native German speakers.

Severely disabled applicants will receive preference over equally qualified non-disabled applicants.

For further information, please contact Timo Gerkmann ([timo.gerkmann@uni-hamburg.de](mailto:timo.gerkmann@uni-hamburg.de)) or consult our website at <http://uhh.de/inf-sp>.

Applications should include a cover letter, curriculum vitae, and copies of degree certificate(s). The application deadline is 22<sup>th</sup> July 2018. Please send applications to: [sp-office@informatik.uni-hamburg.de](mailto:sp-office@informatik.uni-hamburg.de) in a single PDF document. Please start the subject of your Email with [APPLICATION].