

Various Open Positions for Doctoral Researchers

in the post-graduate program UnRAVeL

“Uncertainty and Randomness in Algorithms, Verification and Logic”

at RWTH Aachen University, Aachen, Germany

<https://www.unravel.rwth-aachen.de/>

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Context.

RWTH Aachen University is looking for enthusiastic and highly qualified doctoral researchers. Various positions are available within the interdisciplinary Research Training Group (RTG) UnRAVeL founded by German Research Foundation (DFG). The key emphasis of an RTG is on the qualification of doctoral researchers with a focused research program and a structured training strategy. The RTG UnRAVeL aims to significantly advance probabilistic modelling and analysis for uncertainty by developing new theories, algorithms, and tool-supported verification techniques, and to apply them to core problems from application areas such as: applied machine learning (in control theory as well as network and data science), planning in AI (e.g., robotics), as well as safety and performance analysis (railway systems).

Within UnRAVeL, theoretical computer scientists from computer-aided verification, automata and logic, algorithms and complexity, together with experts from management science (robust optimization), applied computer science (network and data science), mechanical and railway engineering intensively cooperate.

UnRAVeL PIs are: Erika Abraham, Christina Büsing, Jürgen Giesl, Martin Grohe, Joost-Pieter Katoen, Gerhard Lakemeyer, Christof Löding, Nils Niessen, Britta Peis, Sebastian Trimpe, Michael Schaub, and Gerhard Woeginger.

Current and completed doctoral UnRAVeL projects can be found here:

<https://www.unravel.rwth-aachen.de/cms/UnRAVeL/Forschung/~ofhi/Dissertationsprojekte/?lidx=1>

Required profile.

Candidates must have (or soon obtain) a master degree in Computer Science, Mathematics or related area and have completed their studies with excellent grades. You should have interest in performing original, highly competitive scientific research, publishing your results in top conferences and scientific journals. Self-motivation and the ability to work both independently and as a team player in local and international research groups are expected. Fluency in English is required; proficiency in German is helpful but not compulsory.

How to apply?

Your written application should contain:

- a curriculum vitae
- a transcript of records (list of courses and grades)
- a cover letter including a statement of interest in (some of) the RTG topics, and
- a recommendation letter e.g., by your master thesis supervisor(s)

All documents should be formatted as a single pdf-file. The recommendation letter can be provided separately, if needed. You should send your application ultimately by ** December 20, 2021 (AoE) ** to the e-mail address: unravel-appl@cs.rwth-aachen.de. We check applications once they are received, and will conduct interviews until our vacancies are filled.

What do we offer?

We offer a stimulating international research environment, the possibility to participate in highly competitive and interdisciplinary research and the opportunity to involve students in your research through project work. Doctoral researchers have a status as employee with a salary according to the German federal employee scale TV-L E13; the exact salary is subject to your family situation. The duration of the positions is three years with a possible extension to four years.

RWTH Aachen University offers excellent facilities for professional and personal development.

Starting date of the positions: 2022 (flexible).

Enquiries can be directed to Prof. Joost-Pieter Katoen (e-mail:

katoen@cs.rwth-aachen.de).

RWTH Aachen University is certified as a "Family-Friendly University".

We particularly welcome and encourage applications from women, disabled persons and ethnic minority groups, recognizing they are underrepresented across RWTH Aachen University. The principles of fair and open competition apply and appointments will be made on merit.