

The University of Klagenfurt announces

12 PreDoc positions (all genders welcome)

within the **doc.funds doctoral school**

Modeling – Analysis – Optimization of discrete, continuous, and stochastic systems

funded by the Austrian Science Fund (FWF) and the University of Klagenfurt. The doctoral school is embedded into the well-established doctoral program in mathematics at the University of Klagenfurt. It provides a vivid, friendly, and research-oriented environment. In our research we aim to solve mathematical problems by creating synergies from a multi-perspective view, combining the knowledge of several mathematical sub-disciplines. Further information on the doctoral program and the doc.funds doctoral school can be found here: <http://www.math.aau.at/doctoralschool>

The **University of Klagenfurt** is a young and innovative university at the intersection of three cultures. Since its foundation in the year 1970, it has established itself as the leading academic educational institution in the region, and as a hub for the acquisition, exchange, and transfer of knowledge across the entire Alps-Adriatic Region.

Future-oriented degree programmes, outstanding achievements in teaching and research, numerous co-operations at home and abroad, ideal conditions for the advancement of young researchers and a one-of-a-kind campus nestled between a Renaissance city and Lake Wörthersee give the university its distinctive character. The global QS World University Ranking Top 50 Under 50 ranks the University of Klagenfurt among the best 150 young – under the age of 50 – universities worldwide.

Around 12.000 students pursue their studies and research on the campus, including around 2,000 from 100 different nations across the globe.

Our offer

The successful candidates will be employed at the Faculty of Technical Sciences, **Departments for Mathematics and Statistics**. The 9 positions funded by the FWF are 75% (30 hours/week) part-time positions, limited to 3 years (Uni-KV: B1, www.jobs.aau.at/en/faq/), with the possibility of an extension by at most 1 year. The 3 positions funded by the University of Klagenfurt are 75% (30 hours/week) part-time positions, limited to 4 years (Uni-KV: B1, www.jobs.aau.at/en/faq/). Filling the positions funded by the FWF will be prioritized. The monthly gross salary is € 2,196.80, paid 14 times per year, and can be increased to a maximum of € 2,604.30 by taking previous experience into account. The starting date is negotiable, September, 1, 2021 at the latest, preferably **October 1, 2020**.

Tasks and responsibilities

- Autonomous scientific work including the publication of research articles in one or more of the following fields: discrete optimization, combinatorics, regularization methods, parameter identification, computational stochastics and stochastic control, dynamical systems, Bayesian statistics
- Active participation in the research activities of the doctoral school and at international conferences
- International research stay (fully funded)

The successful candidate is expected to do a PhD within the doctoral program and the doc.funds doctoral school Modeling – Analysis – Optimization at the University of Klagenfurt.

Required qualification

- Master's degree at a national or international university in mathematics, statistics, or a related field. This requirement must be fulfilled **two weeks before the starting date** at the latest; the last possible deadline for meeting this requirement is hence August 14, 2021.
- Profound knowledge in one or more of the following fields: discrete optimization, combinatorics, regularization methods, parameter identification, computational stochastics and stochastic control, dynamical systems, Bayesian statistics
- An interest in multi-perspective research combining different mathematical sub-disciplines
- Programming skills (e.g., Python, Matlab, R, SageMath, Maple, Mathematica, C/C++, ...)
- Fluent in English

Desired qualifications

- Ability to work in a team
- High communication and dissemination skills

Every PhD student will have one of our faculty members (of whom 45% are female) as supervisor and they will have a co-supervisor and an international mentor on their side.

The principles of diversity, gender mainstreaming, healthiness, sustainability, and compatibility of family and career build the basis for the achievement of our goals. Hence, all our PhD students will have access to the university's career development program including a special offer for female students.

It is our declared goal to increase the proportion of women in scientific positions and therefore we encourage qualified women to apply for the position. In case of equivalent qualification, women are accepted preferentially. People with disabilities or chronic diseases who fulfill the requirements are particularly encouraged to apply.

General information for applicants is available on www.aau.at/en/jobs/information. For further information, please contact the coordinator of the doctoral school Univ.-Prof. Dr. Michaela Szölgényi (michaela.szolgyenyi@aau.at).

We welcome applications comprising a curriculum vitae, an abstract of max. ½ page (including a statement of interest in multi-perspective research combining different mathematical sub-disciplines and a statement indicating which of the research areas of the doctoral school would be preferred for the PhD), list of courses taken so far and grade report, title/topic of Master's thesis, Master's thesis if available.

If an applicant has not received the Master's degree by the application deadline, the applicant should provide a declaration, written either by a supervising professor or by the candidate themselves, on the feasibility of finishing the Master's by August 14, 2021 at the latest.

Applications must be submitted online **no later than July 2, 2020** via the job portal jobs.aau.at/en/ in the category "Scientific Staff" by pressing the button "Show vacancies", indicating **reference code 324/20** and selecting "Apply for this position".

In addition a confidential letter of reference by a professor should be sent by the professor to mao.doctoralschool@aau.at. The deadline for the reference letter is: **July 2, 2020**.