PROFESSOR FOR FUNCTIONAL ANALYSIS

INFORMATION FOR APPLICANTS
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1 The Johannes Kepler University Linz (Austria)

Firmly anchored in the region, the Johannes Kepler University Linz (JKU) also considers itself a university with a strong international outlook, pursuing an unwavering commitment to quality in research and education. The JKU aims to consistently move forward and advance to become one of Europe’s top universities.

JKU researchers (approximately 160 professors and 2,600 academic employees) continuously pursue new knowledge and insight, deepening our insight in terms of what we know and understand today. The university also places great value on knowledge transfer, further deepening dialogue with members of society, the business community, and cultural establishments. As Upper Austria’s largest educational institution, the JKU not only focuses on both education and research, but also on the regional and global challenges of our time, particularly those as outlined in the JKU’s third mission (science with and for society).

Today, as an effectively positioned university, the JKU hones core skills and expertise in technology (engineering, computer sciences, natural sciences), social sciences, economics & business, education, law, and medicine. The JKU is predestined to engage in the academic and scientific challenges of our time, particularly in regard to digitalization and sustainability as well as values in support of diversity and inclusion. We not only foster a visionary approach, the JKU emphasizes and practices interdisciplinary and transdisciplinary research and academics.

The JKU is strongly committed to supporting social responsibility that extends beyond research and education. For example, meat served at the university’s award-winning cafeteria stems from organic farms. The university established the LIT Open Innovation Center on campus, a facility at the crossroads of academia, science, research, and real-world practices designed to support and bring about a circular economy and sustainable polymers. Recent campus enhancements complement the quality of university facilities, providing a contemporary infrastructure that not only inspires creativity, but also serves as a dynamic work, recreational, and living space for university employees, students and local residents alike.

We also offer a comprehensive onboarding process for new employees. Whether you are coming to the JKU from elsewhere in Austria or from abroad, our staff at the Office of Dual Career Services and at the JKU Welcome Center can assist to find housing, provide information about local schools and, of course, help your spouse or partner find suitable employment so everyone feels more quickly at home in Linz.

The JKU aims to pursue its objectives and embrace the coming challenges by attracting students and faculty who also aspire to play a key role in contributing toward a future that not only supports technological advancement and progress, but a future that also serves the people and conserves the environment.
2 The Faculty of Engineering and Natural Sciences

Students enrolled at the JKU can choose from over 30 academic degree programs in engineering and natural sciences offered at 60 institutes. The JKU has a strong tradition of conducting advanced, cutting-edge research at the forefront of technology and engineering. Always a step ahead, the JKU introduced the world’s first academic degree program in Mechatronics in 1990 and in 2019, the university launched two unique academic degree programs, one in Artificial Intelligence and another in Medical Engineering. Both programs bring medical and engineering expertise together. A high number of publications, research contracts, Austrian Science Fund projects, EU projects, special research areas, and dissertations are a testament to the Faculty’s scientific and scholarly achievements. By creating competence centers, housing Christian Doppler laboratories, and supporting spin-off companies, technology-oriented companies appreciate the JKU Faculty of Engineering and Natural Sciences as an internationally valued partner.

3 The Subject Area of “Mathematics”

The subject area of Mathematics at JKU consists of nine institutes. Particular strengths of the subject area are research in the area of applied mathematics and its connection to algorithmic mathematics. This leads to a unique symbiosis and collaboration between the institutes of the department and many further cooperation opportunities in Linz. The situation at JKU is therefore characterized by particularly active exchange and continuous cooperation.

The institutes of the department are:

- Institute of Algebra
- Institute of Analysis
- Institute of Applied Geometry
- Institute of Financial Mathematics and Applied Number Theory
- Institute of Industrial Mathematics
- Institute of Numerical Mathematics
- Institute of Stochastics
- Institute of Mathematical Methods in Medicine and Data Based Modeling
- Institute for Symbolic Computation (RISC)

For detailed information see:
The subject area of Mathematics is, among other things, actively involved in the Johann Radon Institute for Computational and Applied Mathematics (RICAM) of the Austrian Academy of Sciences and also puts special emphasis on collaborations with other subject areas of the university.

4 General Requirements for the Professorship in “Functional Analysis”

The position will be filled at the Institute for Analysis. It is expected that the successful candidate will serve as chair of this institute. A research focus in a modern area of functional analysis is required.

4.1 Research

We seek a candidate with excellent international reputation in a modern area of functional analysis, such as for example:

- Nonlinear PDEs
- Convex analysis
- Calculus of variations
- Geometric evolution problems
- Harmonic analysis
- Semigroup theory.

We expect a connection of the research to applications in natural sciences, life sciences, and technical sciences. Besides the research in the area of functional analysis, the successful candidate should actively contribute to cooperations within the department of mathematics and to the research foci of the university. Additional opportunities for cooperation are also available with RICAM.

For the evaluation of the candidate’s qualifications with respect to research, the following criteria will be taken into account:

- Habilitation or comparable academic qualification in the area of Mathematics
- International experience, proven by longer stays abroad, and cooperations with foreign universities and research institutions.
- High scientific reputation, proven by excellent publications, academic/scientific lectures and presentations, national and international collaborations, activities as editor and reviewer, organization of conferences and related activities, successful supervision of doctoral dissertations.
- Experience with acquisition and management of third-party funded research projects.
- A convincing research concept (about one page) for the intended activities as JKU professor for functional analysis at the Institute for Analysis.
When assessing the candidates’ accomplishments, performance, and future potential, the JKU will take the candidates’ individual background and personal history into account by acknowledging that academic and professional success and accomplishments can happen at different stages in life (and can include periods of reduced employment, or career interruption on account of having to provide care, childcare, etc.). In this regard, qualifications are assessed and evaluated in terms of equal opportunity, taking life-course factors, such as academic age, into account.

4.2 Teaching

JKU is committed to research-guided teaching. The successful candidate is expected to offer courses in the all areas of analysis, in particular in her/his own special area functional analysis. The applicant is expected to actively take part in the fundamental education for programs in mathematics as well as to teach service courses of the department. In addition, the successful candidate must be willing to play a significant role in the further development of the mathematics curricula.

In view of the internationalization of our study programs, teaching in English will be required. After an appropriate time, the candidate should also be able to offer courses in German.

For the evaluation of the candidate’s qualification with respect to teaching, the following information will be taken into account:

- List of given courses (elective, mandatory, and service); if available, results of teaching evaluations.
- List of supervised theses.

4.3 Additional Requirements

The applicant is expected to be willing to take responsibilities in administrative matters of the university. In accordance with the JKU’s “Plan for the Advancement of Women”, experience in human resource development and advancement opportunities for women as well as competence in gender mainstreaming are also relevant selection criteria. Corresponding documentation, if available, should be included.

For the evaluation of the candidate’s qualification, the following criteria will be taken into account:

- Experience in leading research teams
- Readiness to act in leading organizational functions
- Ability for human resource development and advancement opportunities for women as well as competence in gender mainstreaming.
4.4 Activities – Significance and Time Span

A balance between research, teaching and independent administrative tasks is desired; approximately 40% teaching, 40% research, and 20% to address department administrative tasks and responsibilities. The successful candidate is also expected to actively and independently participate in administrative committees at the university.

5 Legal Contingencies

Effective as of January 1, 2004, the structure of Austrian universities has been completely re-organized. They are independently financed on the basis of a three-year service level agreement with the Austrian government, have a global budget at their disposal, and are not subject to any directives by the Austrian Federal Ministry of Science and Research.

5.1 Terms of Employment

All terms of employment, including a university professorship, are subject to the Private Sector Employees Act. A work contract between the university and the appointed professor confirms the professor’s appointment. The Salaried Employees Act and the collective agreement for university employees provide the legal framework for all related labor, social, and pension conditions. An evaluation of all teaching and research activities will be conducted after a 5-year period to assess the fulfillment of all target agreements.

5.2 Pension Regulations

5.2.1 Pension

A pension account at the Pension Insurance Company for Employees (PVA) provides the basis to calculate the amount of pension. All pension account holders are registered for annual partial credits during insurance periods in the amount of 1.78% of the annual contribution basis and these are capped at the maximum assessment basis. The sum of the partial credits is the total credits that are re-valued annually. The total credit divided by 14 equals the amount of gross monthly pension. More information about the pension you receive directly from the state, please contact the PVA.

5.2.2 Company Pension Fund for University Professors

In compliance with the Universities Act 2002, a special pension scheme is provided for university professors and has been agreed upon in a Collective Agreement. The contribution payment made by the university is 10% for the set minimum salary as stated in the collective agreement. Voluntary salary payments agreed upon aside from the collective agreement minimum salary are not a part of the base calculation of the contribution payments.
6 Salary

The amount of the minimum salary for Group A 1 (Professorship) has been determined in the collective agreement for university employees and is a gross annual salary of 89,075.00 Euros per year (last update: 2024). Payment is allocated in 14 equal amounts, whereby two parts are special allocated payments.

The position as Professor for “Functional Analysis” provides a provision (on a voluntary basis) to agree on a salary over the minimum salary set by the collective agreement.

After a positive evaluation every six years – at most 4 times in total – there will be an advance to the next pay grade in accordance to the salary bracket in collective agreement for job category A 1.

7 Application Procedure

Prospective applicants for the professorship position “Functional Analysis” are requested to send the following application documents in electronic form to: application@jku.at.

7.1 General Information

• Application form
• Letter of Intent (1 page)
• Tabular Curriculum Vitae
• Academic diplomas (Doctorate, Post-Doctorate [Habilitation])

7.2 Research

• Complete list of publications and electronic copies of the five most important publications.
• List of invited talks
• Overview of national and international cooperations at universities, research institutions, and in industry; activities as editor and reviewer; organized conferences and related activities
• List of research projects: function, project titles, principal investigator, budget, duration, sponsor, number of employees and to what extent (hours/week) they were employed
• A research concept (at most one page) for future activities as professor for functional analysis at JKU (cf. Section 4.1)
7.3 Teaching

• List of taught courses and, if available, results of evaluations
• List of supervised Masters and Ph.D. theses

7.4 Miscellaneous

If available, evidence for:
• qualification and suitability for managing organizational units, research projects, etc.
• qualification and suitability for cooperative management and scientific public relations
• participation in events for pupils or efforts to increase the number of students
• ability for human resource development and advancement opportunities for women as well as competences in gender mainstreaming

8 Information

If you have any questions about the position, please contact Univ.-Prof. Dr. Manuel Kauers (+43 (732) 2468 9958, manuel.kauers@jku.at).