

The Acoustics Research Institute ([ARI](#)), an interdisciplinary research institution of the of the Austrian Academy of Sciences ([OeAW](#)), invites applications for a

JUNIOR GROUP-LEADER POSITION (F*M)

for a new group within the Mathematics cluster of the Acoustics Research Institute

(full-time / 40h per week, tenure-track)

for researchers in *Application-oriented Mathematics in Acoustics*.

ARI undertakes fundamental research in psychoacoustics, bioacoustics, acoustic phonetics, computational acoustics, mathematics, signal processing and machine learning. A close interaction between ARI's clusters (organized in working groups) allows innovative research approaches based on the synergy from multidisciplinary and creates concepts that stimulate the individual research fields. As part of the OeAW, ARI is focused towards high-impact research comparable to Max-Planck or CNRS institutes.

The cluster *Mathematics* comprises of the working group *Frame Theory and Implementation* (headed by ARI's director P. Balazs), various project groups, and will be supplemented by the new group headed by the successful candidate.

Duties of the new group leader:

- Development of a long-term research perspective in mathematics, signal processing and machine learning, motivated by applications in acoustics as well as building on the current research foci, extending them and developing new ones
- Leading the new group, organizing research projects, and managing the resources in order to achieve research outstanding outputs of the group
- Supporting the whole cluster *Mathematics* in administrative ways as its speaker and manager
- Closely collaborating with the other working groups of ARI in interdisciplinary projects
- Striving for innovative scientific research expanding ARI's multidisciplinary research portfolio within the *Mathematics* cluster
- Developing research proposals as well as acquire research grants in order to fund a significant proportion of the group's research with external funding
- Being an active member or representative in corresponding scientific networks and societies, conferences and journals
- Participating in events aimed at introducing the scientific work to the general public, e.g. Long Night of Research or Noise Awareness Day
- Supporting the institute's director in his administrative duties', e.g. by being an active member in ARI's steering committee
- Be an active part in ARI, supporting the team character

Details of Position

The position of a junior group leader for a new group within the cluster Mathematics of ARI can be compared to a tenurable professorship but with fewer administrative and no strict teaching duties, in order to allow the successful candidate to focus on research. It is a tenure-track position.

The annual gross salary will be € 54.661,32 according to the collective agreement of the Austrian Academy of Sciences (OeAW). In exceptional cases a higher starting salary is possible. The contract will be for a duration of four years, with a potential follow-up to two years. During this period the candidate will apply for tenure assessment by the OeAW. With a positive tenure assessment evaluation, the position will be tenured.

Successful applicants must have:

- A PhD (or equivalent degree) and commensurate research experience as a senior researcher
- Relevant experience in a mathematical topic (with significant publications and projects) with a strong connection to applications in acoustics, being complementary (and supplementary) to the existing research foci at the ARI. Thereby a connection to the following topics are advantageous: Machine Learning, Numerics, Convex and non-convex optimization, Sparsity / Compressive Sensing, Information Theory, Harmonic Analysis, Signal Processing, Operator Theory.

- Significant experience at acquiring project funding and a high potential to attract substantial external project funding in the future
- Experience in leading PhD students and postdocs
- A competitive and promising track-record appropriate to the applicants' career stage, including significant publications
- A high potential to cooperate with at least two other work groups at ARI
- Demonstrated research independence, maturity, and willingness to work in a team

Applicants will be ranked higher if they

- have already shown multi-disciplinary approaches (reaching outside their main discipline).
- have significant publications in mathematics and in acoustics.
- have shown experience in leading a research group and being involved in administrative and organizational duties.
- show high potential to extend the research focus of the Mathematics cluster.

The application process is divided into 2 stages:

Applicants are required to submit in the first stage (STAGE 1):

- A letter (no more than 5 pages) outlining their interest in the position, their relevant experience and their fit to this call, the institute and interaction with the other working groups of ARI
- Curriculum Vitae (5 pages)
- A list of all publications
- Three letters of recommendation

After this stage, 5 to 10 candidates will be short-listed and invited for the second stage.

Short-listed candidates will be asked to submit in the second stage (STAGE 2):

- A short description of previous research activities.
- A research plan (up to 15 pages) for the group.
- A list of the ten most important publications with short summaries explaining their relevance for the application at ARI, including bibliometric data.

Selection Process**STAGE 2 applications will be sent to reviewers asking to apply the following selection criteria:**

- Excellence of the candidate describing the research focus with a five year's plan in detail and a longterm program in overview. Further the strategy how to integrate in and interact with the multi-disciplinary research environment of ARI, a plan for the acquisition of research funding, and optional required additional infrastructure and their financial support.
- Quality of the visions for the group, as well as the methods and approaches:
- Financial planning and management ability:

This process can be terminated at any stage if no outstanding application is available.

The appointment to this position is planned between July 2022 and January 2023.

Contact

Submit applications before **January 31, 2022** to office@kfs.oeaw.ac.at.

Notifications for second stage will be done before **February 28, 2022**, and second stage applications are invited until **March 31, 2022**.

More information on Mathematics and Signal Processing in Acoustics at ARI:

<https://www.oeaw.ac.at/en/ari/research/clusters-teams/mathematics>

If you have questions with respect to the position do not hesitate to contact Peter Balazs via email (peter.balazs@oeaw.ac.at).

The Austrian Academy of Sciences (OeAW) pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity. Individuals from underrepresented groups are particularly encouraged to apply.