Job ID: ISF102DOC221

The **Acoustic Research Institute (ARI)** of the Austrian Academy of Sciences (ÖAW), Austria's leading non-university research facility is an interdisciplinary research institution. It undertakes top-level research in psychoacoustics and experimental audiology, acoustic phonetics, musicology and bioacoustics, physical and computational acoustics, and mathematics and signal processing. The close interaction of the working groups allows innovative research approaches through the synergistic effects of multidisciplinary research. Currently ARI is offering a

PHD STUDENT POSITION (F*M)

(part time, 30hours per week)

in the *Physical and Computational Acoustics* group in Vienna.

The successful candidate will work within the D-A-CH project "*Lion – Localization and Identification of moving noise sources*". This project will be led by Ao Prof. Holger Waubke, together with the project partners from the Beuth Hochschule für Technik Berlin (Prof. Dr.-Ing. habil., Dipl. Math. Ochmann), and Technische Universität Berlin (Prof. Dr. Enghardt), and EMPA, Swiss Federal Laboratories for Material Science and Technology, Dübendorf (Dr. Wunderli).

Responsibilities:

- Extension of an existing BEM code for 2.5D to moving loads
- Derivation of transfer functions from the microphone position to the surface of the structure
- Implementation of a regularization method for the inversion of the transfer matrix
- Visualisation of the results
- Application of the method to existing recordings of trains
- Preparation of and participation in project meetings in Berlin, Zurich and Vienna
- Writing of reports

Requirements and qualifications:

- Master's degree or diploma with excellent scores in one of the following disciplines: applied physics, mathematics, civil engineering, mechanical engineering or audio engineering
- basic knowledge in the Boundary Element Method (BEM) and Inverse Methods
- familiar in programming with C and C++
- Basic knowledge of numerical mathematics
- The candidate shall be able to integrate into a multi-disciplinary research team

We offer a part-time position (30h/week), for a duration of 21 months. The desired starting date is 11.10.2021. The annual gross salary is EUR 31.326,44 (14 payments a year) according to the collective agreement of the Austrian Academy of Sciences.

Candidates should send a letter of application describing their suitability for the position and interest in the project, and a CV by e-mail to Holger Waubke (holger.waubke@oeaw.ac.at), no later than **30.09.2021**.

The Austrian Academy of Sciences (OeAW) pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity. The OeAW lays special emphasis on increasing the number of women in senior and in academic positions. Given equal qualifications, preference will be given to female applicants.

WOHLLEBENGASSE 12–14 | 1040 WIEN, ÖSTERREICH
T: +43 1 51581-2501, 2502 | F: +43 1 51581-2530 | OFFICE@KFS.OEAW.AC.AT
IBAN: AT541100000262650519 | BIC: BKAUATWW | UID: ATU37116303