

INSTITUT JEAN LE ROND D'ALEMBERT
Sorbonne Université, CNRS
4, place Jussieu
75005 Paris

Research Associate/Post-Doc/Research Engineer in Room Acoustics, Spatial audio VR, and/or Virtual acoustic cultural heritage

A full-time contract research position is available to work with the Sound Spaces team, Lutheries - Acoustique – Musique group, Institut Jean le Rond d'Alembert, Sorbonne University, Paris, France :

<http://www.lam.jussieu.fr/index.php?page=Espacesonore>

The successful candidate will work with a dynamic team on several collaborative projects.

The research focus concerns principally either Room Acoustics or Spatial Audio VR, depending on the skills and qualifications of the candidate. Regardless, activities will involve general aspects of spatial auditory perception, room acoustic simulations, audio in VR applications, and archaeoacoustics to some degree. The principal associated projects are :

- PHEND (The Past Has Ears at Notre-Dame, <http://phend.pasthasears.eu/>)
- Sonicom (revolutionise the way we interact socially within augmented and virtual reality, <https://www.sonicom.eu/>)
- Research on the rendering and perception of directional sources in VR (research collaboration with a major VR industry partner)
- Anaglyph (Binaural audio engine, <http://anaglyph.dalembert.upmc.fr/>)
- HESOAN (Hearing the Sounds of Ars Nova)
- EVAA (Experimental Virtual Archaeological-Acoustics, <https://evaa.lam.jussieu.fr>)

The Research Associate will be involved in a range of activities. Activities include immersive audio scene creation, archaeoacoustic reconstructions of historic sites, development of a portable spatial audio applications, and carrying out evaluation listening tests both in the lab and in the field. Additional time can be made available for the candidate's own research ideas. Due the experimental aspects, full-time remote working is not possible.

Responsibilities clearly include producing high quality research, which shall be published in international journals and conferences. The position is for 1 year with extensions of 2 more years possible, considering performance evaluations and available resources.

The successful candidate will be expected to have strong knowledge of immersive and interactive audio. Experience with binaural systems and Ambisonics is of particular importance to this position. Additional experience in room acoustics will be highly beneficial.

Some out of normal working hours work may be required to meet project deadlines and travel requirements.

Skills, Experience & Qualifications desired

- Degree in spatial audio, room acoustics, or associated domain essential.
- A background in spatial audio
- Programming skills (MatLab proficiency is a minimum requirement)

- Experience in creating experimental prototypes such as measurement systems or spatial audio testing facilities
- Experience with listening test design, implementation and analysis
- Experience presenting research findings at international conferences and symposia
- A suitable record of accomplishment in publishing academic articles in international journals and conferences
- Ability to work independently and as part of a dynamic team on multiple projects
- Experience with interactive audio systems, such as virtual and augmented reality headsets, Unity 3D and other VR and AR technologies is desirable

Expected starting date : December 2024 (flexible).

Salary is based on experience, following the university's scale.

Candidature/applications should comprise the following 3 items:

- Letter of motivation
- CV/résumé including list of publications
- List of 3 references that can be contacted

Candidate's letter of motivation should highlight how their skills will benefit the above projects as well as demonstrate how they will be able to acquire new skills for improved integration into the research team.

Closing date: 15-Nov-2024

For candidature and enquiries: please contact Brian FG Katz (brian.katz@sorbonne-universite.fr)

For list of most publications from the team, see:

<https://www.lam.jussieu.fr/Membres/Katz/index.php?page=publicationsLaTeX>

or

<https://scholar.google.fr/citations?hl=en&user=KBJXqecAAAAJ>