Research Associate/Post-Doc/Research Engineer in Virtual acoustic cultural heritage and Spatial audio VR
Sound Spaces team, Institute Jean le Rond d’Alembert, Sorbonne University

A contract research position is available to work with the immersive audio team at 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=Espacessonore). The successful candidate will work with a dynamic team on several collaborative projects. The principal project concerns virtual reality reconstructions of Notre-Dame cathedral, covering both post-fire and various periods in history. Adjacent projects involve more general aspects of spatial auditory perception, room acoustic simulations, and dynamic source directivity in VR applications. The principal associated projects are:

- PHEND (The Past Has Ears at Notre-Dame, https://evaa.lam.jussieu.fr/doku.php?id=start#phendthe_past_has_ears_at_notre_dame)
- PHE (The Past Has Ears, acoustics as cultural heritage, https://evaa.lam.jussieu.fr/doku.php#phenixthe_past_has_ears)
- Anaglyph (Binaural audio engine, http://anaglyph.dalembert.upmc.fr/)
- Research on the rendering and perception of directional sources in VR (research collaboration with a major VR industry partner)

The Research Associate will be involved in a range of activities, working with a team of about a dozen acoustic researchers and doctoral students. Activities include immersive audio scene creation, archeoacoustic reconstructions of historic sites, development of a portable spatial audio guide application, and carrying out evaluation listening tests both in the lab and in the field.

Responsibilities clearly include producing high quality research, which shall be published in international journals and conferences. The position is for 1 year with potential extension up to a maximum duration of 3 years.

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 hours work may be required to meet project deadlines and travel requirements.

Skills, Experience & Qualification needed

- 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 March 2021.

Salary is based on experience, following the university 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: 30-Nov-2020

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