

SPP2236 AUDICTIVE – Spring Meeting, March 10, 2023

Schedule for March 10 - tentative:

- * 8:45 **ARRIVE at Radisson Blu Hotel, Congressplatz 2, 20355 Hamburg**
Room “Shanghai”, 1st floor
Coffee & snacks are provided during the entire day
- * 9:00 Talk by Janina Fels and Discussion (abstract below):
*“Bringing the real life into the lab:
Hearing research in interactive virtual environments”*
- * 10:30 **Break**
- * 11:00 Presentation Project Posters
- * 12:30 **Lunch break – catering on site**
- * 13:30 Working groups
- * 15:00 Outlook, Upcoming Events
- * 15:30 **END**

Abstract:

In recent years, considerable progress has been made in understanding auditory cognitive processes and abilities - from perception, attention, and memory to complex performances such as scene analysis and communication. To this end, well-controlled but often unrealistic stimulus presentations that included simple instances of virtual environments have been used. With recent developments in hardware and software technologies, audiovisual virtual reality (VR) has reached a high level of perceptual plausibility that overcomes some of the limitations of simple laboratory settings. Interactive auditory VR is now available and even applicable to non-specialized laboratories where humans can interact with the auditory scene, allowing real-time adaptations of complex auditory input to the listener's ears. Increased application of such interactive VR technology in laboratory settings is expected to help understand auditory perception in complex audiovisual scenes that are closer to real life, including within acoustically adverse situations such as classrooms, open-plan offices, noisy multi-talker communication, and outdoor scenarios. However, a major consideration in bringing real life into the lab requires understanding the extent to which classical theories of auditory cognition and related empirical findings are applicable within the representative interactive audiovisual VR. This talk will introduce recent examples of investigations wherein established paradigms from psychology have been studied using audiovisual VR methodologies. These advances will be discussed in relation to the future of interdisciplinary approaches combining psychology and audiovisual VR in hearing research.