

1. Public Executive Summary

BM audio has focused its work on WP5T4, during the second year, in tools for audio deconvolution, a process by which a signal recorded in a given scene, and which therefore contains the acoustics of that space, is processed in an attempt to dry it as much as possible, erasing the specific acoustics, and obtaining a sound that could have been recorded in a studio or anechoic chamber. This is a very important line of research with applications in various fields. In cinema, it allows the recorded sounds to be extracted from the actual recording space, and located via reverberation processing in any other arbitrary place.

The research described here focuses on two blind-algorithms of very different nature. The first one is based on recording the event with Ambisonics techniques and exploiting the directional information present on them to select only the direct sound arriving from source to receiver. The second one is a mic-array-based algorithm that attempts at reinforcing only the part of the audio stream that is common to all mics in the array.