

## **UPMIXING FROM MONO USING SOUND SOURCE SEPARATION: A REAL WORLD CASE STUDY**

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Recently, sound source separation technologies were used to a number of stereo mixes from the original mono recordings for a number of songs by the Beach Boys. These were issued on a number of album reissues in 2012. For these songs, stereo mixes could not otherwise be created as some or all of the multitrack tapes were missing, or there were significant parts which were added live during mixdown. This tutorial will provide an overview of the technologies used, including factorisation based techniques, and median filtering based techniques for both vocal and percussion separation, as well as user assisted separation in cases where parts of the multitracks were available. It will also highlight some of the issues encountered when deploying sound source separation technologies for upmixing in the real world.