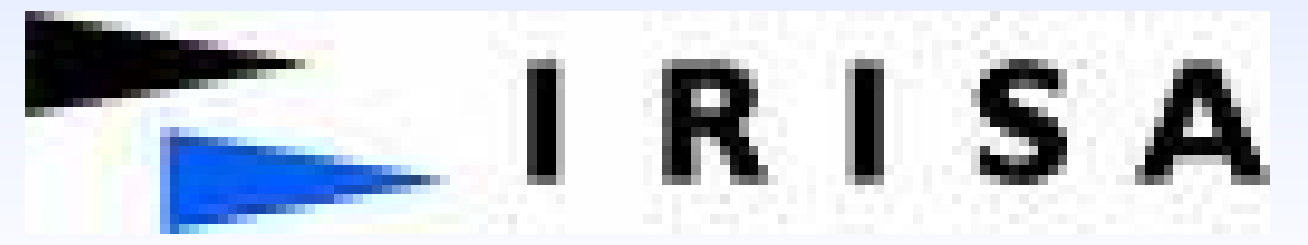


# The SARAH project: Standardization of High-Definition Audio Remastering



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## Project Partners



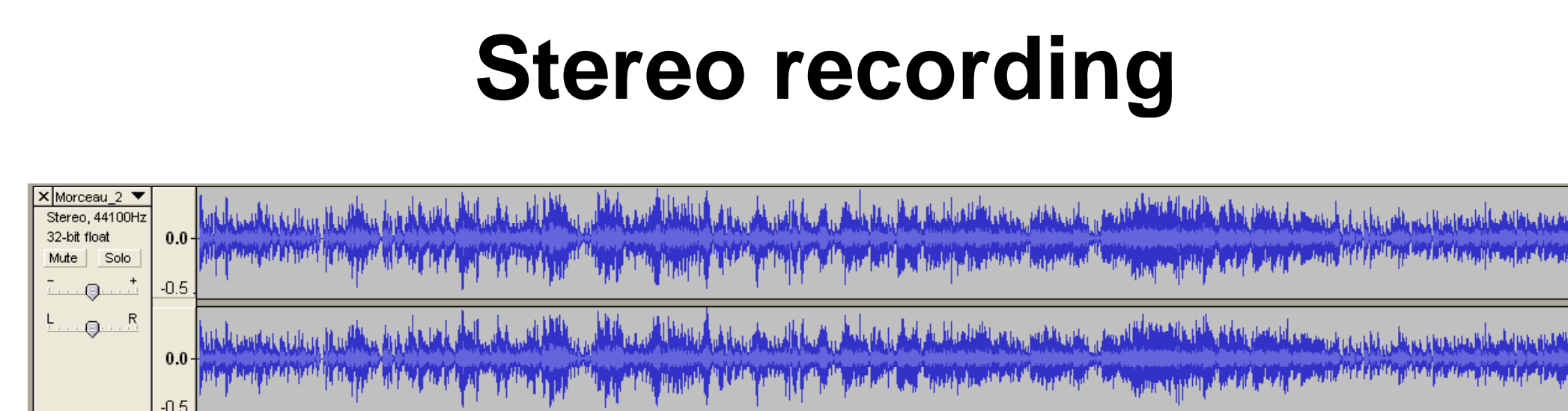
## Project Goals

- Propose new audio source separation algorithms suitable for real world mono and stereo recordings.
- Demonstrate the usability of the separation results for mono/stereo to 5.1 remastering.

## Demo Description

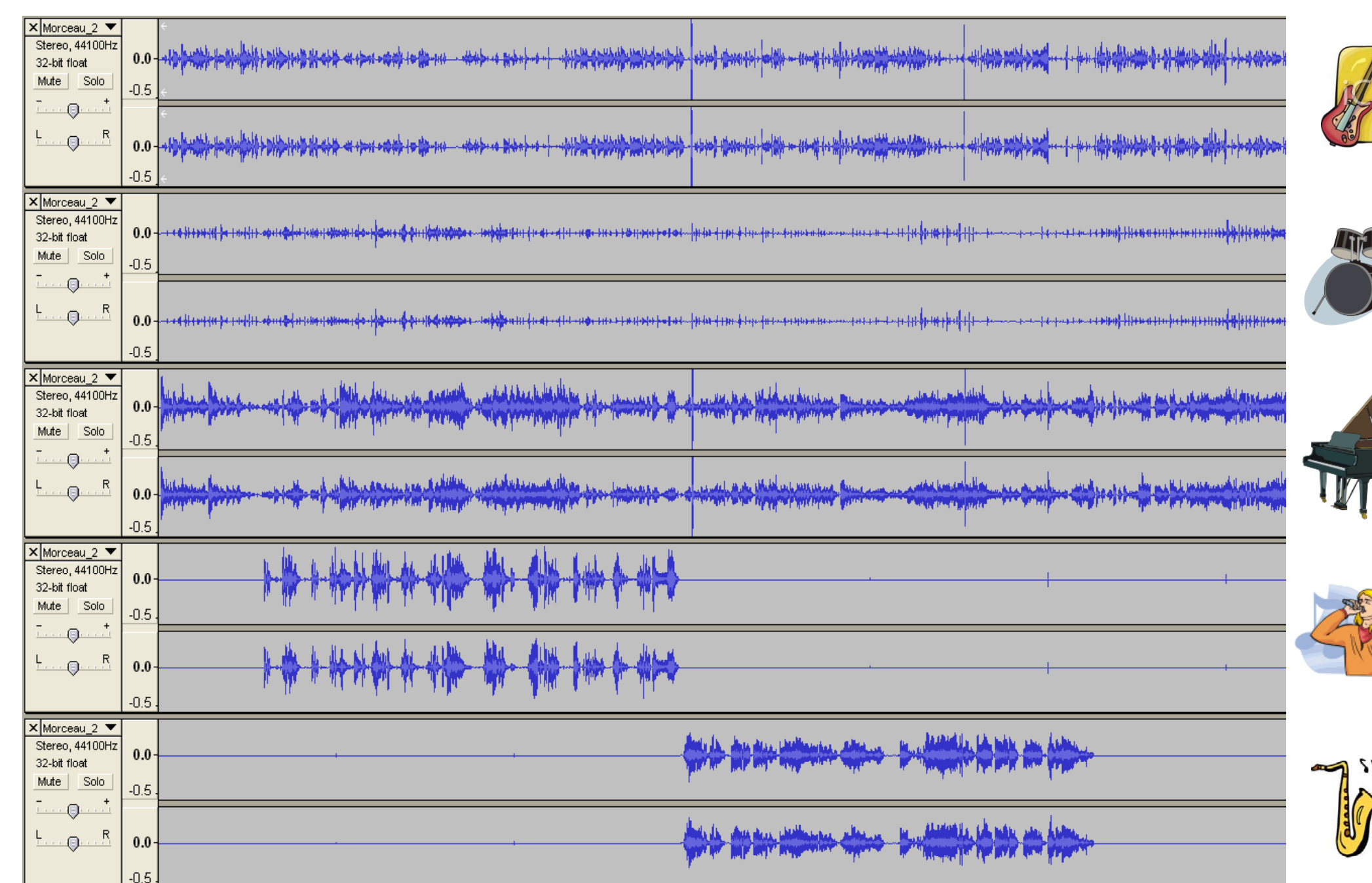
- We propose you:
- to listen to the output of the proposed source separation method, and
  - to play with a user-interactive stereo to stereo remastering interface.

## SARAH Approach



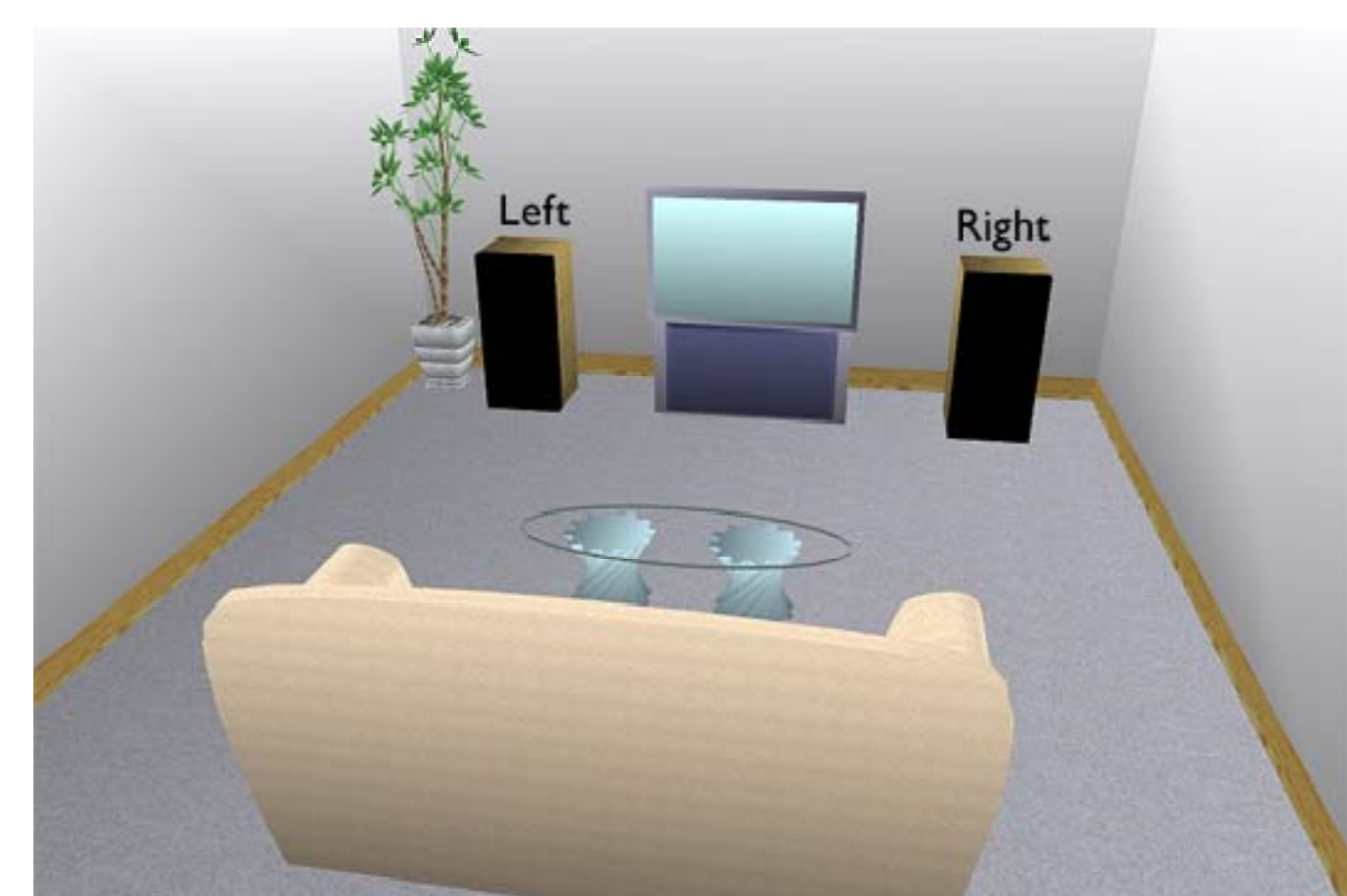
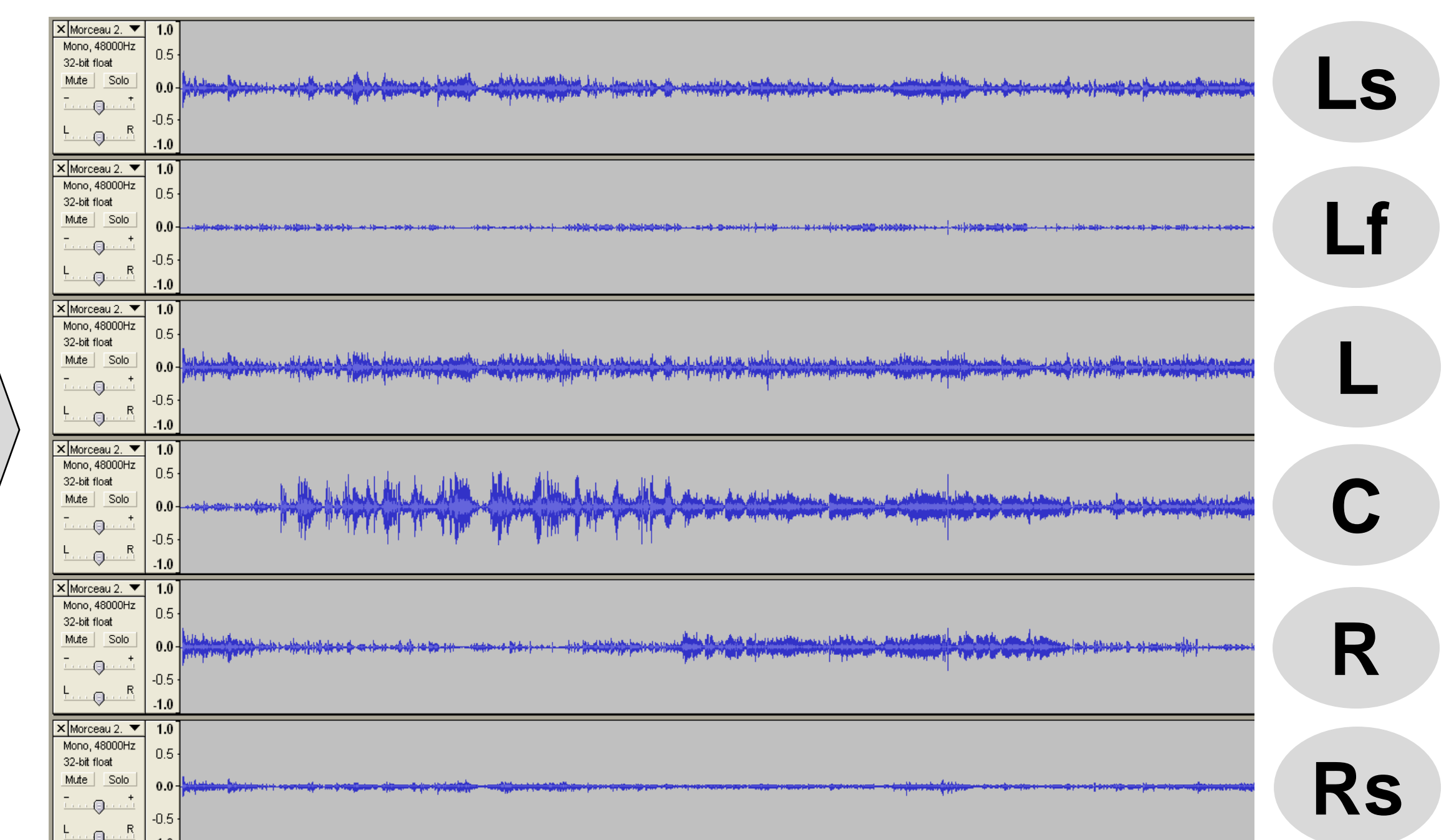
Semi-automatic Source Separation

### Separated source stereo images

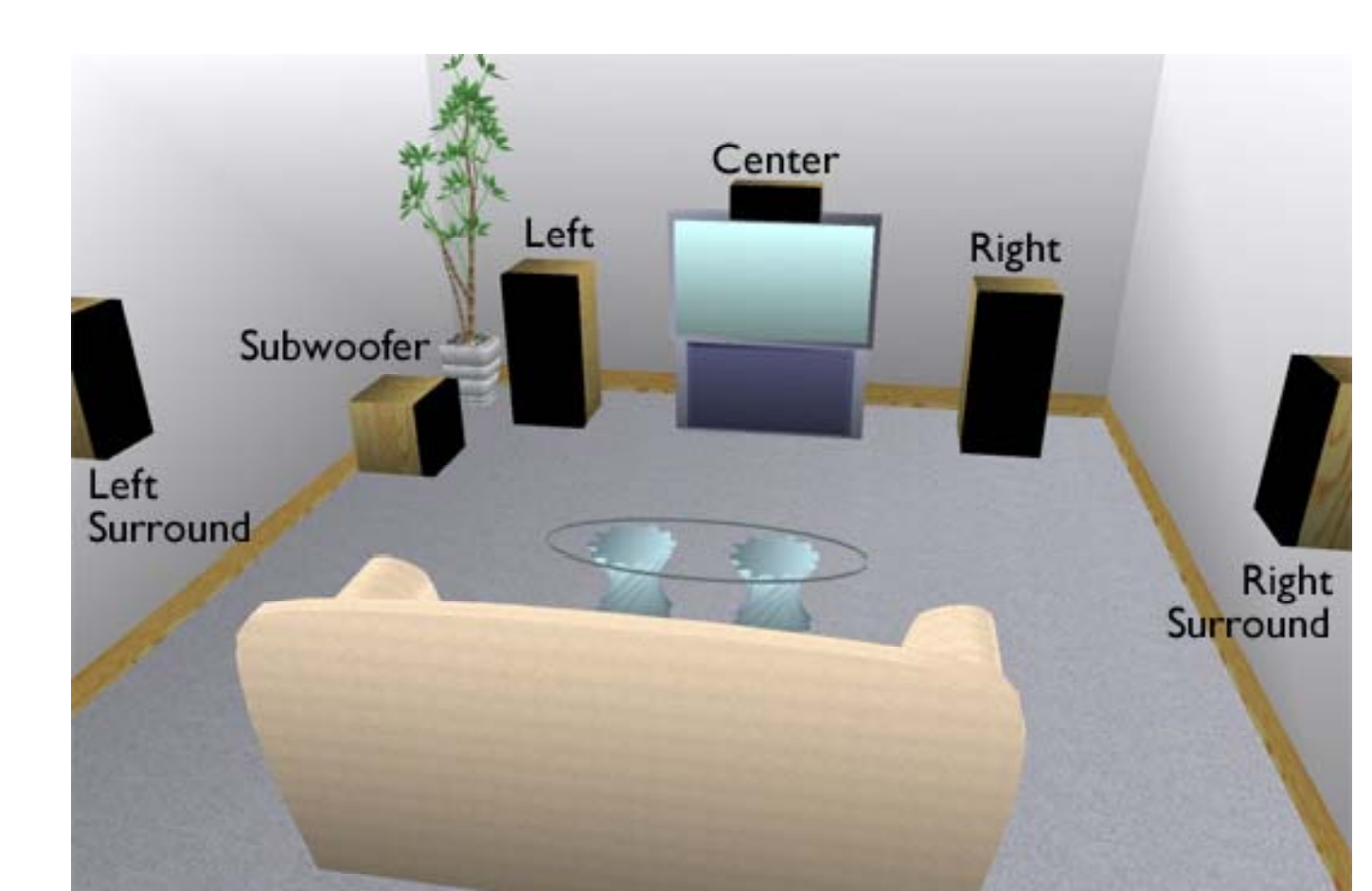


Remastering by a sound engineer

### Remastered 5.1 recording



Our source separation technique is based on multichannel nonnegative matrix factorization [1], with posterior manual binding of the components (see [1]).



## References

[1] A. Ozerov and C. Févotte, "Multichannel nonnegative matrix factorization in convolutive mixtures for audio source separation," *IEEE Trans. on Audio, Speech and Lang. Proc.* special issue on Signal Models and Representations of Musical and Environmental Sounds, vol. 18, no. 1, Jan 2010 (to appear).