

Quick Start

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Usage

Add path to `"./IVA"` and all the subfolders (e.g., `"./IVA/run"`).

```
addpath(genpath("./IVA"))
```

Create a two-channel mixture of two speech signals.

For your first run, a pop-up window will ask whether to download the [dev1 dataset from SiSEC2011](#) [2]. Click "Yes" to continue.

```
[signal1, signal2, fs] = util_loadSampleMixture;  
mixture                = signal1 + signal2
```

Apply FastADMM-IVA [1] with default settings.

```
separated = run_IVA_FastADMM(mixture)
```

Check the result.

```
util_visualizeAndPlay(mixture, separated, fs);
```

Reference

1. H. Watarai, K. Matsumoto, K. Yatabe, "Fast and flexible algorithm for determined blind source separation based on alternating direction method of multipliers," *Acoustical Science and Technology*, **47**(1), pp. XX–XX (2026).
2. S. Araki, F. Nesta, E. Vincent, Z. Koldovsky, G. Nolte, A. Ziehe and A. Benichoux, "The 2011 signal separation evaluation campaign (SiSEC2011): - audio source separation -," *Proc. Conf. Latent Var. Anal. Signal Sep. (LVA/ICA)*, pp. 414–422 (2012).