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 (under review) (2025).
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).