This Matlab program implements the algorithm described in

K. Hu and D. L. Wang (2013): "An unsupervised approach to cochannel speech separation," IEEE Trans. Audio, Speech, and Lang. Process., vol. vol. 21, pp. 120-129.

In a Linux system, go to "run" folder and execute seqGrp.m to start the program. It requires a 16-kHz time-domain cochannel speech as the input. To run a sample program, do the following:

- Under a Linux system, go to the "run" folder
- start MATLAB
- mixture = load('mixture');
- mask = twoSpk_unsupervised(mixture);

Following is a description of the main steps in seqGrp.m:

1. Run a tandem algorithm (Hu & Wang'10) to estimate simultaneous streams

2. Rank simultaneous streams by time

3. Extract GFCC features for each simultaneous stream

4. Perform beam search to group voiced simultaneous streams

5. Onset/offset segmentation to generate unvoiced segments

6. Group unvoiced-voiced and unvoiced-unvoiced segments