Blind Source Separation Via ICA: Audio Demonstration[*]

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Abstract

This module contains example audio files of mixed and recovered signals.

1 Audio Demonstration

The following signals are examples of audio files that we ran through our code. The two signals are linearly mixed, then run through **Matlab** code to recover the original signals.

1.1 Demonstration 1

This is an example of ICA being used to separate out individual voices from two people simultaneously talking. The first two are the linearly combined signals; the last two are the results of the ICA code.

This is an unsupported media type. To view, please see http://cnx.org/content/m15712/latest/Mixed
Signal 1A.wav

This is an unsupported media type. To view, please see http://cnx.org/content/m15712/latest/Mixed
Signal 1B.wav

This is an unsupported media type. To view, please see http://cnx.org/content/m15712/latest/Recovered
Signal 1A.wav

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[*]Version 1.1: Dec 19, 2007 8:48 pm -0600
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This is an unsupported media type. To view, please see http://cnx.org/content/m15712/latest/Recovered Signal 1B.wav

1.2 Demonstration 2

This is an example of ICA being used to separate out individual songs that are playing at the same time. The first two are the linearly combined signals; the last two are the results of the ICA code.

This is an unsupported media type. To view, please see http://cnx.org/content/m15712/latest/Mixed Signal 2A.wav

This is an unsupported media type. To view, please see http://cnx.org/content/m15712/latest/Mixed Signal 2B.wav

This is an unsupported media type. To view, please see http://cnx.org/content/m15712/latest/Recovered Signal 2A.wav

This is an unsupported media type. To view, please see http://cnx.org/content/m15712/latest/Recovered Signal 2B.wav