

# Tutorial: Introduction to Musical Source Separation

Juan José Burred

IRCAM, Équipe Analyse/Synthèse  
1, pl. Igor Stravinsky, 75004 Paris, France  
`Juan.Jose.Burred@ircam.fr`

**Abstract.** This tutorial will offer an introduction to the principles of sound source separation, and to the advantages it offers to Music Information Retrieval applications. A number of general separation concepts, such as mixing models, sparse decompositions and Independent Component Analysis will be introduced, followed by a set of techniques aimed specifically at musical mixtures, such as methods relying on Sinusoidal Modeling and on a priori training of instrument models. Recently published works will be presented, together with numerous sound examples.