# Audio Source Separation

Type de contenu : Texte

Titre(s) : Audio Source Separation [texte imprimé] : Signals and Communication Technology / Makino Shoji

Auteur(s) : SHOJI M

Mention d'édition : Springer

Editeur, producteur : Angleterre : Shoji Makino Editor, 2018

Description matérielle : 385 p. ; 24 cm

ISBN : 978-3-319-73030-1

Résumé ou extrait : This book provides the first comprehensive overview of the fascinating topic of audio source separation based on non-negative matrix factorization, deep neural networks, and sparse component analysis. The first section of the book covers single channel source separation based on non-negative matrix factorization (NMF). After an introduction to the technique, two further chapters describe separation of known sources using non-negative spectrogram factorization, and temporal NMF models. In section two, NMF methods are extended to multi-channel source separation. Section three introduces deep neural network (DNN) techniques, with chapters on multichannel and single channel separation, and a further chapter on DNN based mask estimation for monaural speech separation. In section four, sparse component analysis (SCA) is discussed, with chapters on source separation using audio directional statistics modelling, multi-microphone MMSE-based techniques and diffusion map methods. The book brings together leading researchers to provide tutorial-like and in-depth treatments on major audio source separation topics, with the objective of becoming the definitive source for a comprehensive, authoritative, and accessible treatment. This book is written for graduate students and researchers who are interested in audio source separation techniques based on NMF, DNN and SCA.

Sujet(s) : sciences
Audio Source
Signal et communication
technologie