

independent component analysis - cs.helsinki - independent component analysis final version of 7 march 2001 aapo hyvarinen, juha karhunen, and erkki oja, a wiley-inter-science publication john wiley & sons, inc. **independent component analysis: algorithms and applications** - independent component analysis (ica) is a recently developed method in which the goal is to find a linear representation of nongaussian data so that the components are statistically independent, or as independent as possible. **independent component analysis - imperial college london** - independent component analysis with some recent advances aapo hyvarinen, dept of computer science dept of mathematics and statistics university of helsinki. problem of blind source separation there is a number of source signals: due to some external circumstances, only linear mixtures of the source signals are observed: estimate (separate) original signals! principal component analysis ... **independent component analysis and blind source separation** - independent component analysis and blind source separation aapo hyvarinen, dept of mathematics and statistics dept of computer science and hiit university of helsinki interbrain symposium 2010, jyvaskyla. problem of blind source separation there is a number of source signals: due to some external circumstances, only linear mixtures of the source signals are observed. estimate ... **independent component analysis: an approach to clustering**. - independent component analysis: an approach to clustering. jamal b. bugrien* and john t. kent university of leeds 1 introduction independent component analysis (ica) (hyvarinen et al., 2001), and projection pursuit (pp) **independent component analysis and fastica** - hyvarinen et al [1]. 1. introduction independent component analysis (ica) is a powerful technique separating an observed multivariate signal into statistically independent nongaussian - components. for example, let s^T have independent (non-gaussian) sound sources installed at different locations in a room. assuming no time room delay and echoes, a microphone placed somewhere in the ... **one-unit learning rules for independent component analysis** - one-unit learning rules for independent component analysis aapo hyvarinen and erkki oja helsinki university of technology laboratory of computer and information science **topographic independent component analysis - ece.duke** - independent component analysis (ica) (juttunen and herault, 1991) is a statistical model where the observed data is expressed as a linear transformation of latent variables that are nongaussian and mutually independent. **a fast fixed-point algorithm for independent component analysis** - independent, and the problem is solved by the independent component analysis (ica) model. ica is a statistical method for transforming an observed multidimensional random vector into components that **chapter 4 independent component analysis - springer** - independent component analysis iii solution consists of the unique independent non-gaussian components and of mixtures of independent gaussian components (hyvarinen et al. 2001). **deterministic independent component analysis** - deterministic independent component analysis ruitong huang ruitong@ualberta and gyorgy@ualberta csaba szepesvari@ualberta szepesva@ualberta department of computing science, university of alberta, edmonton, ab t6g2e8 canada abstract we study independent component analysis with noisy observations. we present, for the first time in the literature, consistent, polynomial-time algorithms ... **an alternative approach to infomax and independent component analysis** - a. hyvarinen/neurocomputing 44:46 (2002) 1089-1097. 1091 ica model [5,12], if the nonlinear functions f_i are suitable approximations of the cumulative distribution functions of the independent components. **package fastica** - r-independent component analysis (ica) the data matrix x is considered to be a linear combination of non-gaussian (independent) components i.e. $x = sa$ where columns of s contain the independent components and a is a linear mixing **new approximations of differential entropy for independent component analysis** - new approximations of differential entropy for independent component analysis and projection pursuit aapo hyvarinen helsinki university of technology laboratory of computer and information science p.o. box 2200, fin-02015 hut, finland email: aapo.hyvarinen