



KU LEUVEN

Statistics and Econometrics Seminar

Joint organization by
ORSTAT, Faculty of Business and Economics and the Statistics Research Group,
Faculty of Science
Leuven Statistics Research Center

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Université libre de Bruxelles

“Some notes on ICA”

Thursday, March 1, 2012

12.00–13.00h

Location: Room HOG 03.101, Naamsestraat 69, Leuven.

Supporting research project: GOA-project 2007/04

Abstract. In the independent component (IC) model it is assumed that the p -variate random vector

$$x = \Omega z + \mu,$$

where μ is a location vector, Ω is a full rank $p \times p$ mixing matrix, and z is a p -variate vector with mutually independent components. In the independent component analysis (ICA) the aim is to find an estimate of an unmixing matrix Γ such that Γx has independent components. We talk about standardization of the IC model, and on the basis of n independent copies of x , we consider one-sample testing and estimation procedures for Ω (or Γ). We also discuss comparison of different unmixing matrix estimates.