## Aspects of factor modelling of skew multivariate data

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It is well known that Adelchi Azzalini's skew-normal distributions, both for univariate and multivariate variables, has a stochastic representation as a factor model with a single factor following a truncated standard normal distribution and the skewness parameters acting a factor loadings. This representation is particularly useful to perform Bayesian inference using Gibbs sampling. A similar stochastic representation exists for the extended SUN family, which exhibits multiple latent factors of dimension m¿1. When fitting a SUN distribution to non-Gaussian data, several inference problems arise, such as selecting the dimension m of the latent factors and estimating the matrix of skewness parameters, together with all other model parameters. The present presentation discusses the idea to exploit recent advances in sparse Bayesian factor analysis for Gaussian data to resolve these challenging inference problems in factor modelling of non-Gaussian data, including the use of exchangeable shrinkage process (ESP) priors to select m.