

Bregman Distances in Exponential Families

¹Stummer Wolfgang , ²Vajda Igor

This talk is devoted to the study of Bregman distances between probability measures and stochastic processes, which are “extensions” of the Bregman distances between deterministic functions (used e.g. in image processing and related inverse problems, machine learning, etc.). Mainly, we concentrate on models from exponential families. Several examples of statistically and mathfinancially motivated distributions will be given. Some new proposals for associated graphical goodness-of-fit-test procedures (involving colored 3D plots) will also be shown.

References

- [1] W. Stummer and I. Vajda. On Bregman Distances and Divergences of Probability Measures. *Interni publikace DAR-UTIA 2009/2.*, Praha, listopad 2009.

¹University of Erlangen-Nürnberg, Department of Mathematics, stummer@mi.uni-erlangen.de

²Academy of Sciences of the Czech Republic, UTIA, vajda@utia.cas.cz