

Some generalizations of Bregman divergences

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Consider an inner product space $(\mathbb{X}^\circ, \langle \cdot, \cdot \rangle)$ where \mathbb{X}° is an open domain.

Nielsen, F., Piro, P., and Barlaud, M. (2009). Bregman vantage point trees for efficient nearest neighbor queries. In *2009 IEEE International Conference on Multimedia and Expo*, pages 878–881. IEEE

The Bregman divergence (Bregman (1967)) was originally defined by Lev M. Bregman in the 1960's for finding a point in a common intersection of a finite set of convex objects by iterative Bregman projections.

Let us Nielsen et al. (2009)

References

Bregman, L. M. (1967). The relaxation method of finding the common point of convex sets and its application to the solution of problems in convex programming. *USSR computational mathematics and mathematical physics*, 7(3):200–217.

Nielsen, F., Piro, P., and Barlaud, M. (2009). Bregman vantage point trees for efficient nearest neighbor queries. In *2009 IEEE International Conference on Multimedia and Expo*, pages 878–881. IEEE.