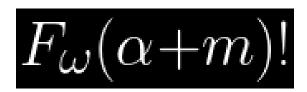
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## The why and how of nonnegative matrix factorization

Friday, November 1, 2019 11:35 AM (25 minutes)

Nonnegative matrix factorization (NMF) has become a widely used tool for the analysis of high-dimensional data as it automatically extracts sparse and meaningful features from a set of nonnegative data vectors. I first illustrate this property of NMF on some applications. Then I address the problem of solving NMF, which is NP-hard in general, and review some standard NMF algorithms. Finally, I briefly describe an online NMF algorithm, which scales up gracefully to large data sets.

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Session Classification: Dimension Reduction and Factorization Short Talk