Learning Topic Models using Spectral Inference

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1 Introduction

We study Spectral Inference methods for Joint Stochastic Matrix Factorization to learn Topic models. We demonstrate that Rectified Anchor Words algorithm proposed by Montae Lee et. al, match the performance of probabilistic LDA algorithm.

2 Latent Dirichlet Allocation

Explain Generative model for LDA and Collapsed Gibbs sampler

3 NMF for Topic Models

Expalin first order NMF for learning topic models

4 Anchor Word Models

Explain Anchor word models.

5 Robust Inference for Anchor Word Models

Explain Rectification

6 Experimental Results

Comparision of topics learned by LDA, NMF, Anchor word, JSMF

Perplexity graphs etc.,

7 Conclusion

Conclude and future work directions.