

Decoupling Sparsity and Smoothness in the Discrete HDP

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Problem:

- ▶ In hierarchical Dirichlet process (HDP), the topic sparsity and smoothness is coupled through a single parameter, making it hard to achieve both.

Solution:

- ▶ Sparse topic models (sparseTMs) decouple the sparsity and smoothness using selector variables to choose the terms for topics.
- ▶ This finds simpler models which achieve better predictive perplexities.

