MICHIGAN STATE UNIVERSITY
Department of Statistics and Probability

COLLOQUIUM

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Personalized Information Filtering

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10:20 a.m. - 11:10 am
Refreshments 10:00 am
C405 Wells Hall

Abstract

Personalized information filtering extracts the information specifically relevant to a user, based on the opinions of users who think alike or the content of the items that a specific user prefers. In this talk, we discuss latent models to utilize additional user-specific and content-specific predictors, for personalized prediction. In particular, we factorize a user-over-item preference matrix into a product of two matrices, each having the same rank as the original matrix. On this basis, we seek a sparsest latent factorization from a class of over complete factorizations, possibly with a high percentage of missing values. A likelihood approach is discussed, with an emphasis towards scalable computation. Examples will be given to contrast with popular methods for collaborative filtering and contented-based filtering. This work is joint with Y. Zhu and C. Ye.

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