Collaborative Filtering via Group-Structured Dictionary Learning

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Context

- Emerging research areas:
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 - structured dictionary learning (SDL).

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 - structured dictionary learning (SDL).
- We have recently extended SDL to handle:
 - overlapping group structures,
 - non-convex sparsity inducing,
 - incomplete observations,
 - online.

Ref.: Z. Szabó, B. Póczos, A. Lőrincz: Online Group-Structured Dictionary Learning. CVPR-2011, pages 2865-2872.

Contribution

- Decision making → recommender systems: CF (ratings).
- We present a novel application of SDLs = CF.
- The presented SDL based approach: outperforms
 - state-of-the-art competitors,
 - approaches not applying structured sparsity.



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