

Methods for recovering conditional independence graphs (Abstract Reprint)

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Abstract

Conditional Independence (CI) graphs are a type of Probabilistic Graphical Models that are primarily used to gain insights about feature relationships. Each edge represents the partial correlation between the connected features which gives information about their direct dependence. In this survey, we list different methods and study the advances in techniques developed to recover CI graphs. We cover traditional optimization methods as well as recently developed deep learning architectures along with their recommended implementations. To facilitate wider adoption, we include preliminaries that consolidate associated operations, for example techniques to obtain covariance matrix for mixed datatypes.

References

[Shrivastava and Chajewska, 2024] Harsh Shrivastava and Urszula Chajewska. Methods for recovering conditional independence graphs: A survey. *J. Artif. Int. Res.*, 80, jun 2024.