

Optimization of temporal networks under uncertainty

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20397197&lokasi=lokal>

Abstrak

[Many decision problems in Operations Research are defined on temporal networks, that is, workflows of time-consuming tasks whose processing order is constrained by precedence relations. For example, temporal networks are used to model projects, computer applications, digital circuits and production processes.

Optimization problems arise in temporal networks when a decision maker wishes to determine a temporal arrangement of the tasks and/or a resource assignment that optimizes some network characteristic (e.g. the time required to complete all tasks). The parameters of these optimization problems (e.g. the task durations) are typically unknown at the time the decision problem arises.

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