A HEURISTIC APPROACH FOR BEST SETS OF ACTIONS DETERMINATION IN INFLUENCE NETS*

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ABSTRACT

The paper presents a heuristic approach for the problem of finding the best or close-to-best sets of actions in uncertain situations modeled by Influence Nets. The approach enhances the analysis capability of Influence Nets by allowing the user to observe the combined impact of actions on the desired effect in contrast to the sensitivity analysis that allows the user to evaluate individual impacts only. Unlike the exhaustive search which works in exponential time, the proposed approach generates result in polynomial time. The paper also demonstrates the generalization of alternative sets of actions.

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