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Assignment of bachelor's thesis

Title:	Hiding Leaders in Covert Networks: A Computational Complexity Perspective
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Instructions

Covert networks are social networks often consisting of criminals or other harmful users. When reducing criminal activities, we can try to detect the most influential users in such networks. Leaders of such networks, as expected, try to hide from being seen, e.g., by introducing new connections. Waniek et al. [1] showed that the problem of hiding the leader is NP-complete for multiple centrality measures. This line of research was followed by other authors [2,3]. In this work, we survey the computational complexity of the problem variants studied in the literature and try to derive new complexity and algorithmic results for various structural restrictions of covert networks using the framework of parameterized complexity [4].

References

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