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Binary Search Generalizations in Graphs

We consider a problem of searching for an unknown target vertex t in a (possibly edge-weighted) graph. Each *vertex-query* points to a vertex v and the response either admits that v is the target or provides any neighbor s of v that lies on a shortest path from v to t. This model has been introduced for trees by Onak and Parys [1] and for general graphs by Emamjomeh-Zadeh et al. [2]. In this talk we discuss the error models (in which some responses may be incorrect) and our selected results in [3, 4, 5].

This is joint work with Aleksander Łukasiewicz, Stefan Tiegel, Przemysław Uznański, and Daniel Wolleb-Graf

References

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