

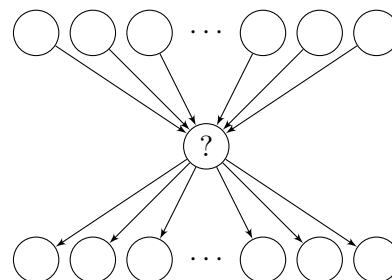


BA/SA/GA/Lab:

Paper Rank for Literature Research

As scientific publications are becoming more accessible through the web, researching related literature nowadays merely requires using a web search engine. The biggest success story in web search is unarguably the page rank algorithm, which has also been applied to scientific literature.¹

However, the nature of literature research differs from the usual web search. While, as in a web search, broad search terms may yield many results that are unrelated to the current topic of interest, narrowing down the search using more keywords is not viable. For one, the best keywords to narrow down the search may not be known in advance. Another reason is that the few papers of interest may use differing or even unique terminology, and a search for those would rule out interesting papers that use different terms. This thesis aims to address those issues by developing an application tailored to scientific literature research.



Goals

- Compute the page rank of papers in a citation network.
- Identify means that allow to narrow down the search space.
- Develop an application to aid literature research.

Requirements

- Good Programming skills.
- Basic understanding of algorithmics.
- Ability to work independently on the topic.

Interested? For more details please contact

- Tobias Langner: tobias.langner@tik.ee.ethz.ch, ETZ G61.4
- Jochen Seidel: jochen.seidel@tik.ee.ethz.ch, ETZ G61.1

¹For example, Ying Ding et al. "PageRank for ranking authors in co-citation networks". In: *J. Am. Soc. Inf. Sci. Technol.* 60.11 (Nov. 2009). DOI: [10.1002/asi.v60:11](https://doi.org/10.1002/asi.v60:11)