Critique of Fast Distributed Complex Join Processing

In this research paper [1], the authors aim to tackle the issue of optimizing big data analytics in parallel distributed systems by proposing the Adaptive Distributed Join (ADJ) approach. The key contribution of the paper is the co-optimization of communication, pre-computing, and computation costs, which is unique and innovative. The primary result of the experimental study is that the ADJ approach outperforms existing multi-way join methods by a significant margin, with near-linear speed up on two out of three queries.

However, the paper does have some limitations, specifically regarding scalability on the third query. Additionally, the conclusion could benefit from a statement on the significance of the results and a comparison with existing methods, and the related work section could benefit from a more detailed analysis of previous works in the field. Despite these limitations, the paper makes a valuable contribution to the field of big data analytics in parallel distributed systems and provides a promising approach for optimizing complex join queries.

References:

[1] Hao Zhang et al. Fast Distributed Complex Join Processing. ICDE 2021