A Randomized Fast Algorithm
for Frame Subsampling

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Abstract

Lee and Sun [LS17] constructed a new randomized algorithm for fast frame subsampling reducing the problem to solving a semi-definite program. We continue their work and show that an almost equal algorithm with deterministic properties exists, such that precise results, which do not depend on random terms, are possible. Moreover, we generalize to non-tight frames as input and elaborate ways to speed up the program.

References

[LS17]   Y. T. Lee and H. Sun. "An SDP-Based Algorithm for Linear-Sized Spectral Sparsification". In: (2017). URL: doi.org/10.48550/arXiv.1702.08415.

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