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Tight bound on Johnson’s algorithm for maximum satisfiability.  

Summary: The authors present new techniques that give a more thorough analysis on Johnson’s classical algorithm for the maximum satisfiability problem. In contrast to the common belief for two decades that Johnson’s algorithm has performance ratio $1/2$, we show that the performance ratio is $2/3$ and that this bound is tight. Moreover, we show that simple generalizations of Johnson’s algorithm do not improve the performance ratio bound $2/3$.

MSC:
68W05  Nonnumerical algorithms

Keywords:
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References:

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