

HYPERBOLIC SMOOTHING METHOD FOR SUM-MAX PROBLEMS

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**Abstract**

In this study, an approach for solving nonsmooth optimization problem, which includes sum of finite maximums of smooth functions is proposed. Minimum  $l_1$ -norm approximations is a particular case of this problem. In this approach, the problem is reformulated in order to use the hyperbolic smoothing function and the relationship between the original problem and reformulated problem are proved. This approach allows us to use conventional smooth optimization methods.

**Keywords:** Hyperbolic smoothing method, sum-max problem, nonsmooth optimization

**References**

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