
On Theory, Methods and Applications of Some Global Optimization Problems

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Summary

In this talk first of all, I a brief summary on a necessary and sufficient global optimality conditions (GOC) for a different class of problems obtained by various authors in the past.

Then, I introduce a GOC for the class of monotonic optimization problems and its adaptation into a numerical procedure. The proposed method is tested for solving one practical problem, which origins from a network congestion control. The problem is called as a network utility maximization problem. I introduce current achievements in solving it and their limitations because of practical requirements.

Key words: *convex maximization, monotonic optimization, network utility maximization problem, distributed computation based on lagrangian duality, quality of service*

References

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