# Improved approach for obtaining dual cones and extended construction of convex cones

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**Abstract**

In our previous work [1], we introduced two novel ways for generating closed convex cones. The first method constructs closed convex cones via inequalities, while the second employs support functions. Furthermore, We derived the corresponding dual and polar cones through their associated support functions. In this presentation, we discuss an enhanced approach for obtaining dual and polar cones from convex cones, as well as an extended framework for the construction of convex cones.

# References

[1] C-Y Yang, Y-L Chang, C-C Hu, and J-S Chen, *Novel constructions for closed convex cones through inequalities and support functions*, Journal of Optimization Theory and Applications, vol. 205, no. 3, Article 57, 2025.