Novel constructions for closed convex cones through inequalities and support functions

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Abstract: Two novel ways to generate closed convex cones, the main ingredient of conic optimization, are proposed in this study. The first way is constructing closed convex cones via inequalities, whereas the second one is through support functions. The contribution of this article is twofold. One is opening up new ideas for looking into structures of closed convex cones. The other one is providing novel approaches and mediums for investigating conic optimization.

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