Balashov, Maxim V.
Approximate calculation of the Chebyshev center for a convex compact set in $\mathbb{R}^n$. (English)
Zbl 1486.52005

An approximate algorithm for determining the Chebyshev center of a finitely-dimensional convex compact set is provided, making use of the supporting function of the latter. The initial problem is reduced to the solution of a linear programming problem in order to estimate the approximation error in terms of grid steps. An example illustrates the theoretical results.

Reviewer: Sorin-Mihai Grad (Paris)

MSC:
52A20 Convex sets in $n$ dimensions (including convex hypersurfaces)  
90C05 Linear programming  
41A50 Best approximation, Chebyshev systems

Keywords:
Chebyshev center; stability of minimization problem; Hausdorff distance; linear programming; supporting function

Full Text: Link

References:

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