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On Chebyshev centers. (English) Zbl 1441.41008


Summary: In this paper, we survey the main known results on Chebyshev centers and point out some of the connections between the theory of Chebyshev centers and other problems of Approximation Theory and of Banach space theory. We also discuss results on the existence, uniqueness and nature of Chebyshev center points, continuity of the Chebyshev center map and conditions under which bounded sets are centrable.

MSC:

41A50 Best approximation, Chebyshev systems
41A65 Abstract approximation theory (approximation in normed linear spaces and other abstract spaces)
46B20 Geometry and structure of normed linear spaces

Keywords:

Chebyshev center; Chebyshev radius; nearly compact set; remotal set; uniquely remotal set