

Local Lipschitz property for the Chebyshev center mapping over N-nets

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Abstract

We prove local Lipschitz property of the map which puts in correspondence to each exact N-net its Chebyshev center. If dimension of Euclidean or Lobachevsky space is greater than 1 and the net consists of more than 2 points we show that this map is not Lipschitz in a neighbourhood of the space of all 2-nets embedded into the space of N-nets endowed with Hausdorff metric.

Keywords

Chebyshev center, Hausdorff metric, Local Lipschitz property, N-net