

论文

Ba空间中的多元加权光滑模与Bernstein Durrmeyer算子

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摘要:

该文引进Ba空间多元加权光滑模,推广L^p空间的DitzianTotik模,证明该模与K泛函的等价性.作为应用,讨论定义在单纯形上多元Bernstein-Durrmeyer算子与多元加权光滑模之间的关系.即以多元加权光滑模为尺度,建立Bernstein-Durrmeyer算子在Ba空间逼近阶的上界与下界估计.

关键词: B\_a空间 光滑模单纯形 Bernstein-Durrmeyer算子

分类号:

46E30,41A25,41A36

Multivariate Weighted Modulus of Smoothness and Bernstein-Durrmeyer Operators in B\_a Space

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Abstract:

In this paper, the authors introduce a new multivariate weighted modulus of smoothness in B\_a space, which generalizes the Ditzian Totik's modulus in L^p space. The equivalence relationship between the modulus and certain K functional is shown. As an application, the relationship between the multivariate Bernstein Durrmeyer operators defined on the simplex and the modulus is discussed as well. Namely, with the modulus as a metric, the upper and lower bounds of degree of approximation by the operators are estimated in B\_a space.

Keywords: B\_a space Modulus of smoothness Simplex Bernstein Durrmeyer operators

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