On Equivalence of Several Kinds of Accuracy Conditions

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Accuracy plays an important role in construction of compactly supported wavelets and in numerical solution of differential equation and integral equation. It is also convenient to analyze the regularity and approximation of refinable functions by using accuracy conditions. Recently several kinds of accuracy conditions have been raised in some literatures for multivariate refinable vector with arbitrary dilation matrix. The main purpose of this paper is to establish the equivalent relationship among them and give some new characterization of accuracy.

Keywords: Accuracy, refinable vector, dilation matrix

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