L. Knockaert and F. Olyslager

Modified B-splines for the sampling of band-limited functions,


**Abstract**

It is shown that there is an optimal finite linear combination of B-splines, denominated modified B-splines, such that a pertinent low frequency condition called $M$-flatness is satisfied. A profound relationship of the modified B-splines with the Beta distribution implies an asymptotic sampling theorem with exact reconstruction requiring only small oversampling.