

# Refinable functions from Blaschke products

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October 10, 2004

*Dedicated to Laura Gori with friendship and esteem on the  
occasion of her 70th birthday.*

## Abstract

In this paper we study the problem of constructing refinable orthonormal cardinal functions from Blaschke products. The digital filter perspective of our construction corresponds to what is called an infinite impulse response (IIR) filter. We show how to construct, at least numerically, stable filters of this type in contrast to the Butterworth filter which is the maximally flat filter in our class.

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