# Interpolating Refinable Functions and Wavelets for General Scaling Matrices

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**Abstract**

This paper introduces a general procedure for constructing interpolating refinable functions for arbitrary dilation matrices. The key ideas are based on the construction presented in [24]. Several families of interpolating refinable functions are computed exlicitly. They originate from a convolution product of some simple function, either generalized B–splines or the Laplace scheme. A suitable correction is added to obtain interpolating solutions.

**Key Words:** Interpolating scaling functions, spline functions, wavelets, expanding scaling matrices.

**AMS Subject classification:** Primary 26B05, 41A05, 41A15, secondary 41A30, 41A63.

*This work has been supported by the Volkswagen–Stiftung (RiP–Programm Oberwolfach)

†This work has been supported by the Volkswagen–Stiftung (RiP–Programm Oberwolfach) and BMBF under grant 03-MA7POT-6