Vol. 21 No. 4

TWO-SCALE RELATIONS FOR B- \mathcal{L} -SPLINES WITH UNIFORM KNOTS

E.G. Pytkeev, V.T. Shevaldin

Received January 19, 2015

Analogs of scaling relations are constructed for basis exponential splines with uniform knots corresponding to a linear differential operator of arbitrary order with constant coefficients and real pairwise distinct roots of the characteristic polynomial; the construction does not employ techniques from harmonic analysis.

Keywords: basis exponential splines, two-scale relations, scaling function, linear differential operator.

E.G. Pytkeev Dr. Phys.-Math. Sci., Krasovskii Institute of Mathematics and Mechanics, Ural Branch of the Russian Academy of Sciences, Yekaterinburg, 620990 Russia.

V. T. Shevaldin Dr. Phys.-Math. Sci., Krasovskii Institute of Mathematics and Mechanics, Ural Branch of the Russian Academy of Sciences, Yekaterinburg, 620990 Russia, e-mail: Valerii.Shevaldin@imm.uran.ru.

Cite this article as:

E. G. Pytkeev, V. T. Shevaldin, Two-scale relations for *B-L*-splines with uniform knots, *Tr. Inst. Mat. Mekh. UrO RAN*, 2015, vol. 21, no. 4, pp. 234–243.