SOME HERMITE BIVARIATE INTERPOLATION PROCEDURES

Dan BĂRBOSU

Abstract. A blending operator of Hermite type is constructed by using the parametric extensions of the univariate Hermite projectors. These extensions are presented in the first section.

In the next section, the product of these extensions is considered. It is proved that this product is an interpolation projector and its precision set is determined.

The main results of the paper are contained in the last section, where is proved that the boolean sum operator of Hermite parametric extensions is an interpolation projector (theorem 4.1.), is determined the precision set of this projector (theorem 4.2.) and are deduced the expressions of the corresponding remainder operator (theorem 4.3 and theorem 4.4.).

1991 Mathematics Subject Classification: 41A05, 41A15, 41A35
Key words and phrases: Hermite projector, parametric extension, boolean sum, precision set, blending operator.