

*Dedicated to Professor Ioan A. RUS on the occasion of his 70<sup>th</sup> anniversary*

## Some interpolation schemes with triangular and rectangular nodes of Birkhoff type

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ABSTRACT. If  $P_i, i = \overline{1, r}$  and  $Q_j, j = \overline{1, r}$  are univariate Lagrange interpolation projectors so that the parametric extensions are bivariate projectors which form the chains, i.e.

$$P'_1 \leq P'_2 \leq \dots \leq P'_r, Q''_1 \leq Q''_2 \leq \dots \leq Q''_r$$

the bivariate Biermann interpolation projector is given by

$$B_r = P'_1 Q''_r \oplus \dots \oplus P'_r Q''_1$$

(see [8]).

In [3], using chains of bivariate Birkhoff projectors which are parametric extensions of some univariate Birkhoff interpolation projectors, we defined the bivariate Biermann interpolation projector of Birkhoff type. In this article, we give some properties of this projector. The bivariate Biermann interpolation projectors of Birkhoff type with triangular and rectangular nodes are presented. We give representations of these projectors by cardinal functions and we determine the approximation orders. Some numerical examples are given.

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