

On the Conversion of Rational Triangular Bézier Surfaces and Multi-sided Patches

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Abstract

By a convenient parameter change we give a necessary and sufficient condition for the conversion of a degree n rational triangular Bézier surfaces to a degree $n \times n$ rectangular surface whose one of the four edges is reduced to a single multiple point. Using then the method of base point we obtain the explicit expression of multi-sided patches in Bézier form.

Keywords: Bézier rational surfaces