

Degree Reduction in Bezier Curve: A Blossoming Approach

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ABSTRACT

The conversion of a B-spline curve in different domains of degree through the degree raising or degree reduction is common when transferring the B-spline from one computer system to another. This study explores further degree reduction in Bezier curve by use of with blossoming approach. I present a degree reduction algorithm to establish the control points of the reduced Bezier curve of degree from . This algorithm is easier to understand than the previous one and is simpler to program and can express the geometric relationship of control points before degree reduction. In addition, I present a modified blossoming algorithm, implemented with matrix operations, to enhance the original work and to construct the degree reduced Bezier curve.

Keywords : Degree reduction ; Degree elevation ; Blossom

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