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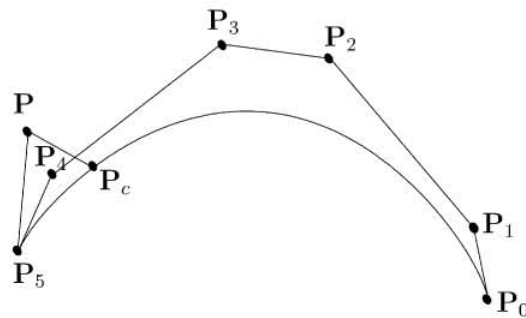
Fig. 1. A counterexample.

As shown in Fig. 1, the nearest point on a Bézier curve in $\mathbb{R}^3$ space with the control points $\{\mathbf{P}_i\}$ to the test point $\mathbf{P}$ is $\mathbf{P}_c$, while from the algorithm in (Ma and Hewitt, 2003), the nearest point is $\mathbf{P}_5$, which is an end point of the curve.

Acknowledgements

References

Ma, Y.L., Hewitt, W.T., 2003. Point inversion and projection for NURBS curve and surface: control polygon approach. Computer Aided Geometric Design 20 (2), 79–99.

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