

Monotone Rational Trigonometric Interpolation

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Abstract : This study is concerned with the visualization of monotone data using a piece-wise C_1 rational trigonometric interpolating scheme. Four positive shape parameters are incorporated in the structure of rational trigonometric spline. Conditions on two of these parameters are derived to attain the monotonicity of monotone data and other two are left-free. Figures are used widely to exhibit that the proposed scheme produces graphically smooth monotone curves.

Keywords : trigonometric splines, monotone data, shape preserving, C_1 monotone interpolant

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