

## Overview of Adaptive Spline interpolation

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**Abstract :** At this stage, in view of various situations in the interpolation process, most researchers use self-adaptation to adjust the interpolation process, which is also one of the current and future research hotspots in the field of CNC machining. In the interpolation process, according to the overview of the spline curve interpolation algorithm, the adaptive analysis is carried out from the factors affecting the interpolation process. The adaptive operation is reflected in various aspects, such as speed, parameters, errors, nodes, feed rates, random Period, sensitive point, step size, curvature, adaptive segmentation, adaptive optimization, etc. This paper will analyze and summarize the research of adaptive imputation in the direction of the above factors affecting imputation.

**Keywords :** adaptive algorithm, CNC machining, interpolation constraints, spline curve interpolation

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