noetic TECHNOLOGIES, INC

A University of Southern Mississippi Research Foundation Company

K_nSAI

K_n functions for Stochastic Approximation and Interpolation

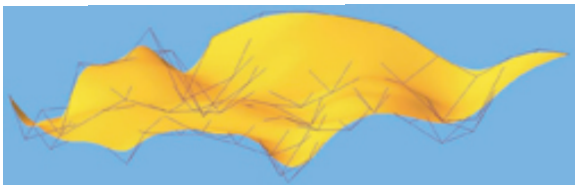
- A new unified approach to data processing
- Noise filtration, smoothing, image zooming

INTRODUCTION

A new approach to data processing has been developed which has the potential to improve the performance of numerous applications such as consumer digital imaging, defense, streaming media, medical imaging, character recognition, spectral analysis, and aeronautical modeling.

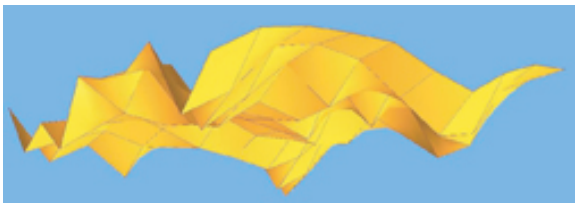
HOW IT WORKS

This novel adaption of the Bernstein method results in perfectly smooth curves which approximate or interpolate data with absolutely no edges and yet the curves can fit tightly to the data. This method produces interpolants that can be tuned or controlled, even in the vicinity of a jump discontinuity so as to minimize any over and under shooting of the curve which is so typical of many methods.

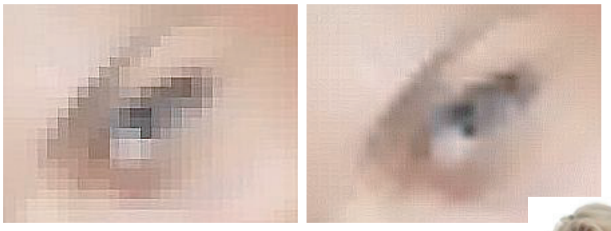


Example 1: Traditional method (NURBS)

Example 2: K_n method



Example 3: K_n function with minimal smoothing



Example 4: Standard pixel zoom vs. K_n zoom

BENEFITS

END USE	K_n METHOD OFFERS
Security and Defense	High image quality Screening tools
Consumer Digital Imaging	Smooth image at high zoom
Consumer Audio and Streaming Media	Higher quality output from lossy or highly-compressed files
Medical Imaging	Extreme high-quality images
Computer Graphics	Faster
Engineering Models	Continuously smooth data

OPPORTUNITIES

This patent-pending technology is available for licensing or custom development to meet your needs. Through our partners, such as the Open Source Software Institute, we are able to program this method into a variety of applications.

Noetic Technologies, Inc. is an initiative of The University of Southern Mississippi geared toward marketing and commercialization of the university's technology.

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