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Univariate subdivision schemes for noisy data with geometric applications

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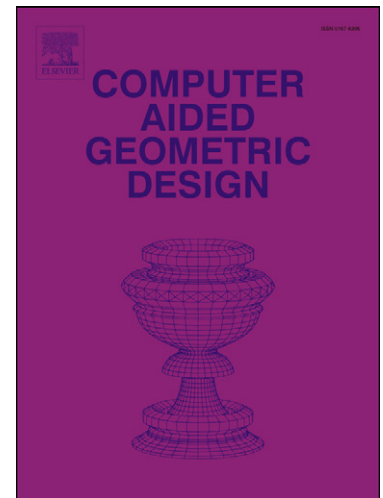
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Highlights

- We construct univariate subdivision schemes for noisy data.
- The constructed schemes are based on fitting local least squares polynomials.
- We study the convergence, smoothness, and basic limit functions of these schemes.
- A statistical model is analysed and validated by several numerical examples.
- We present applications of the schemes for data sampled from curves and surfaces.

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