Approximation and Visualization of Surface Uncertainty

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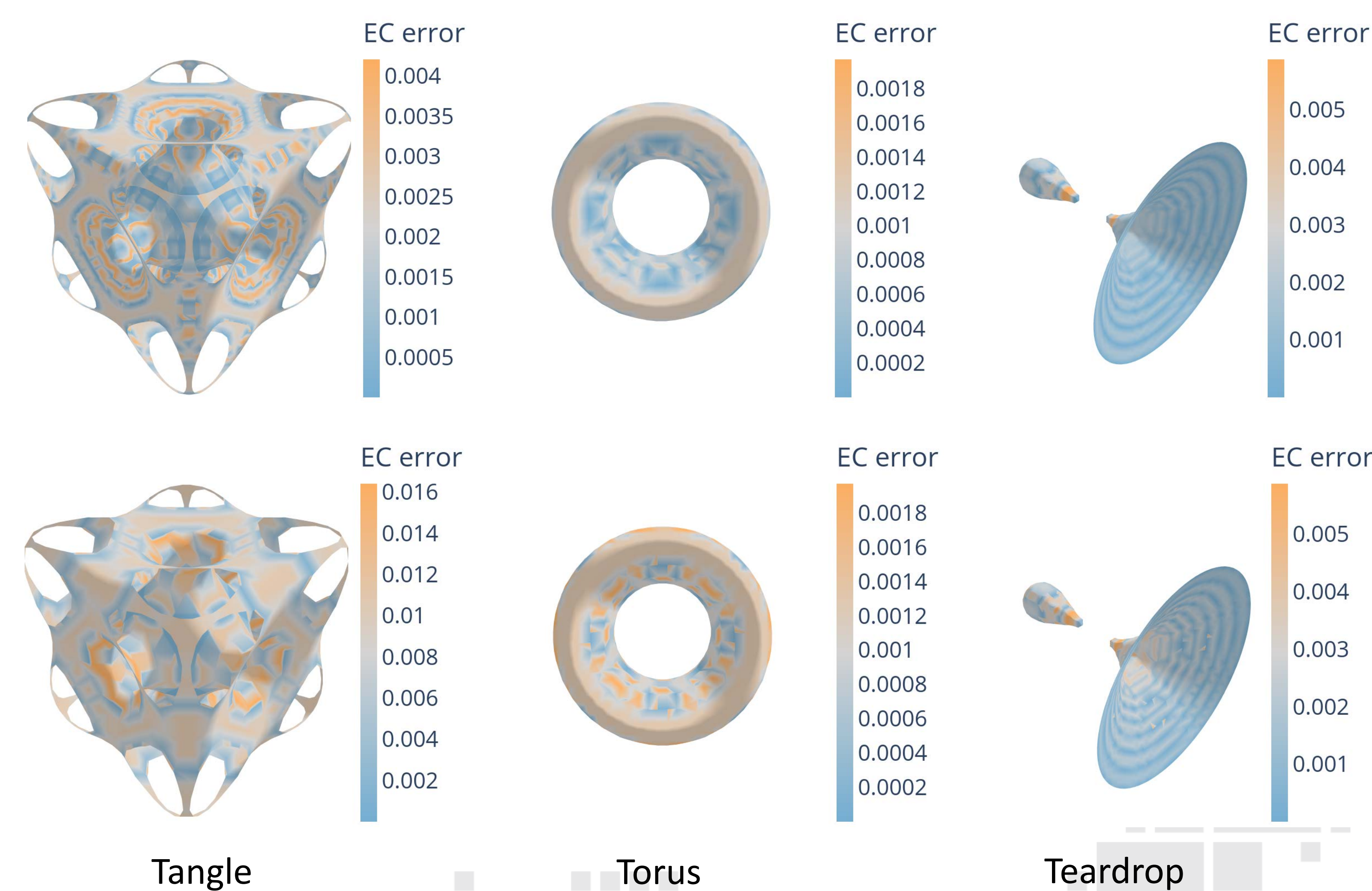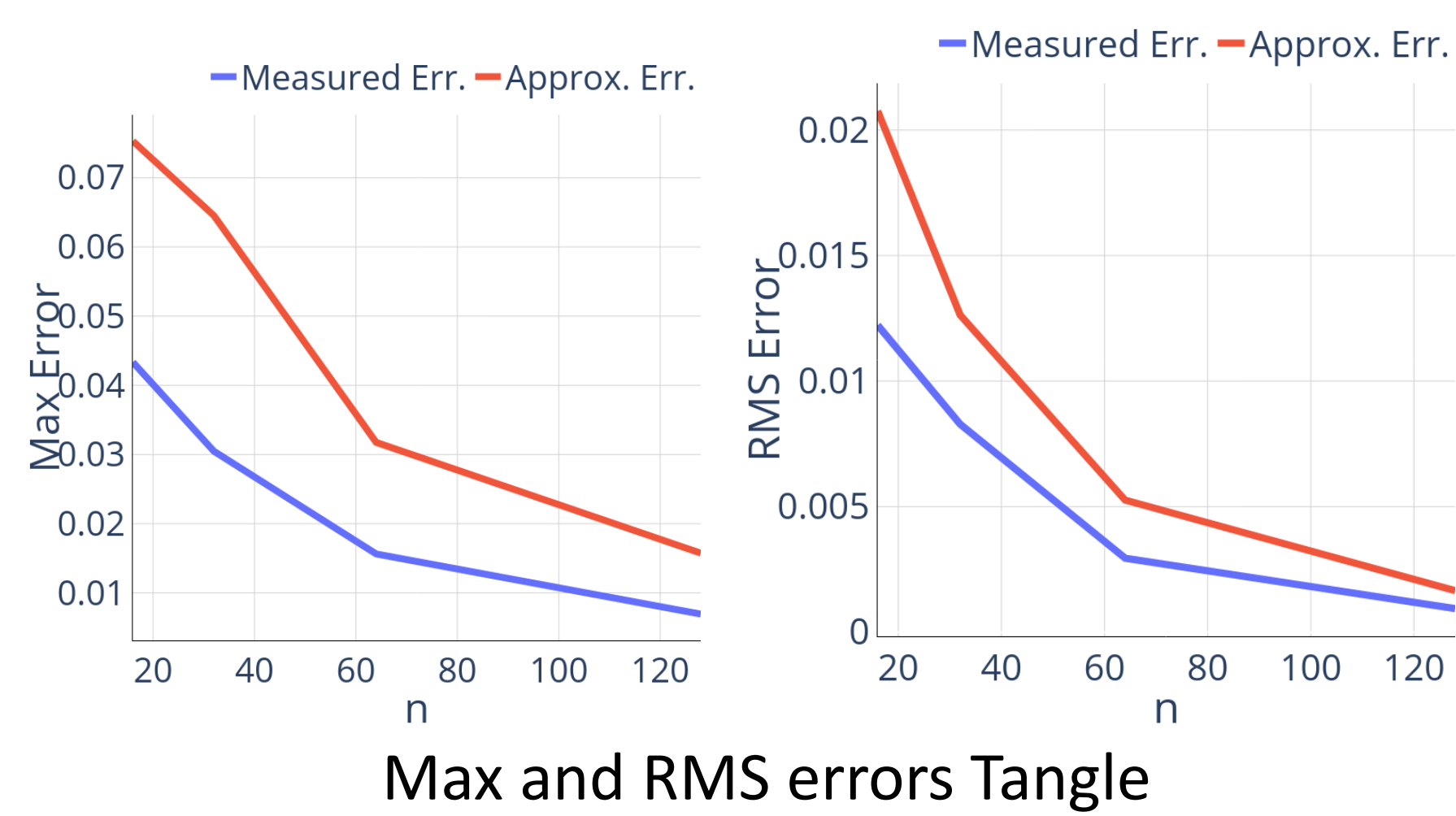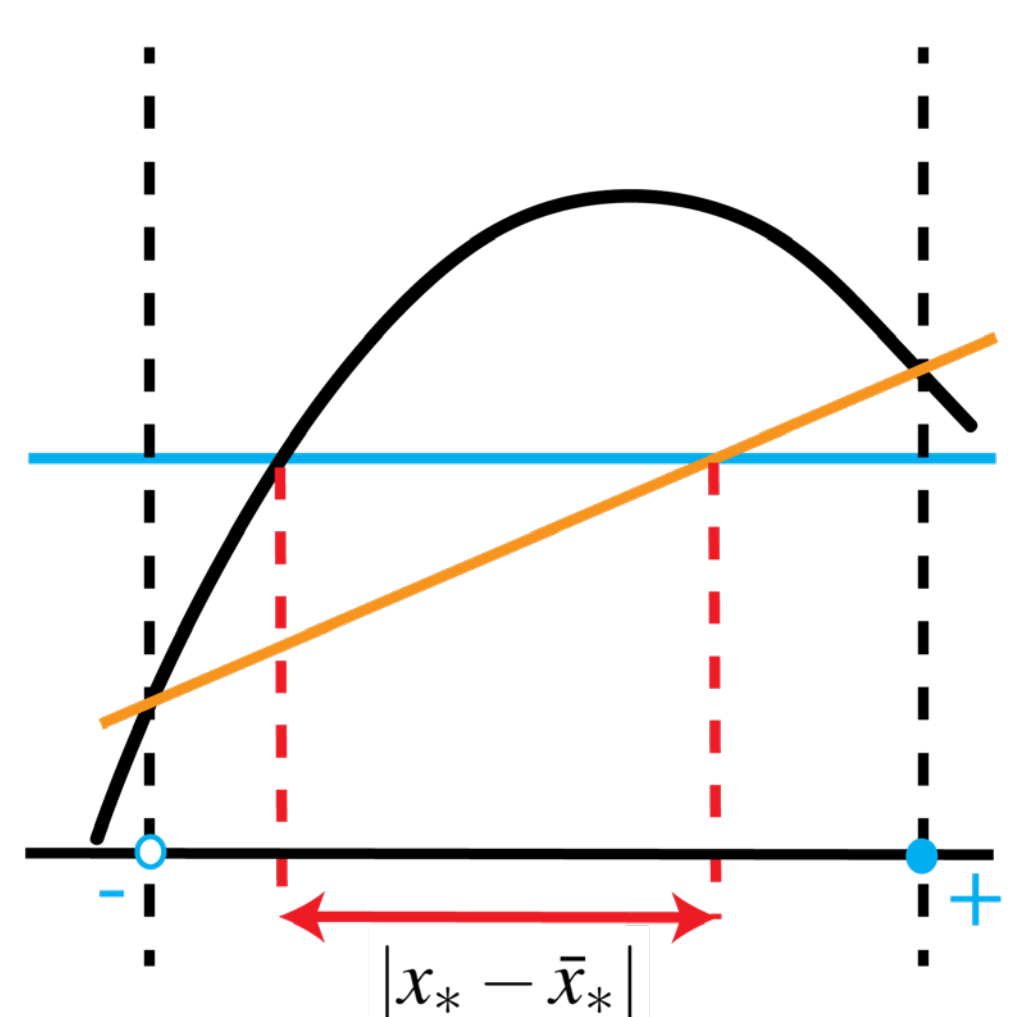
Introduction

Motivation

- The omission of surface extraction uncertainty can lead to inaccurate visualizations and may impact subsequent analyses reliant on the extracted surface
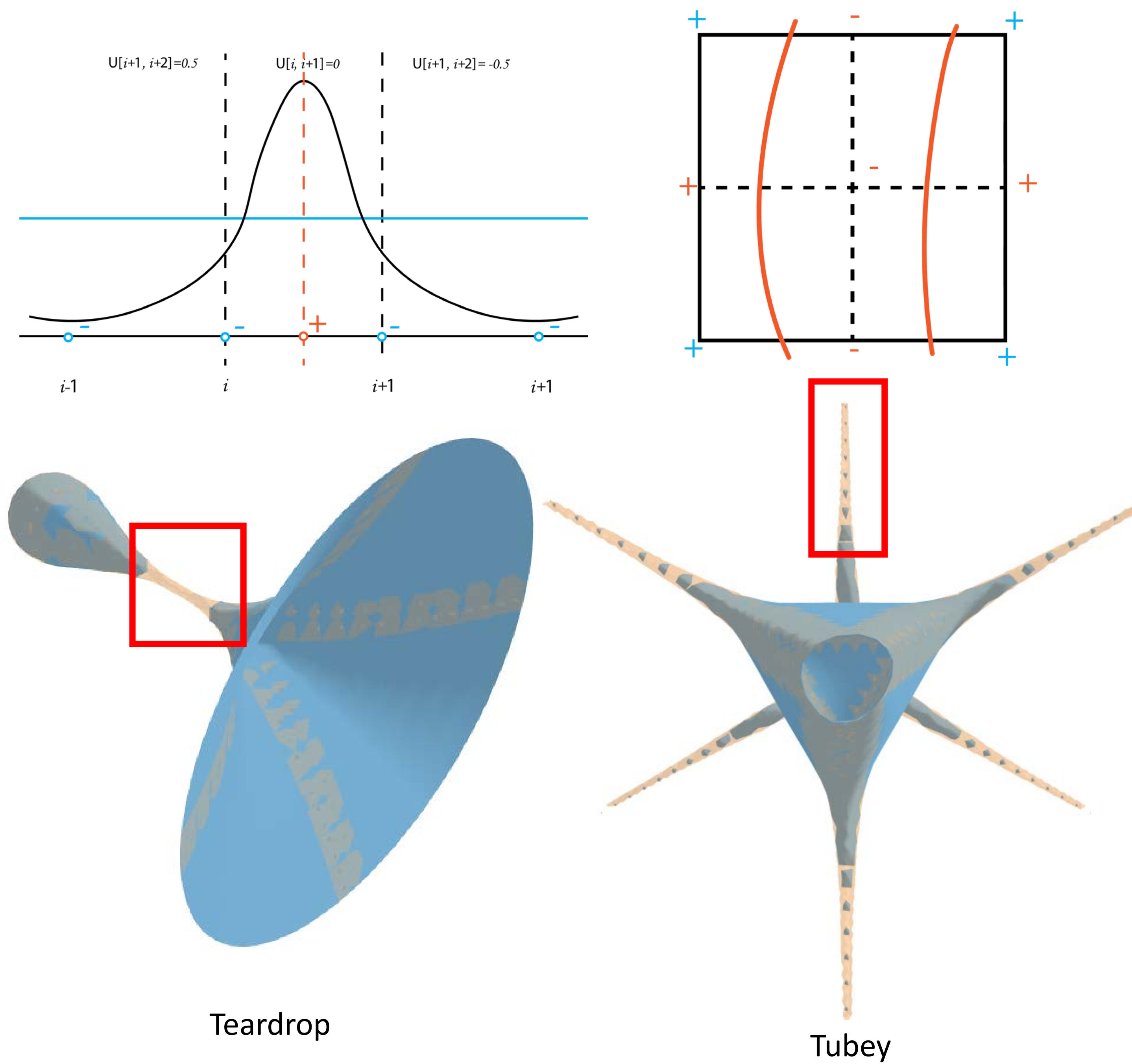
Goal

- Estimate and visualize surface uncertainty caused by the extraction procedure
- Enable exploration and Analysis of the estimation uncertainty
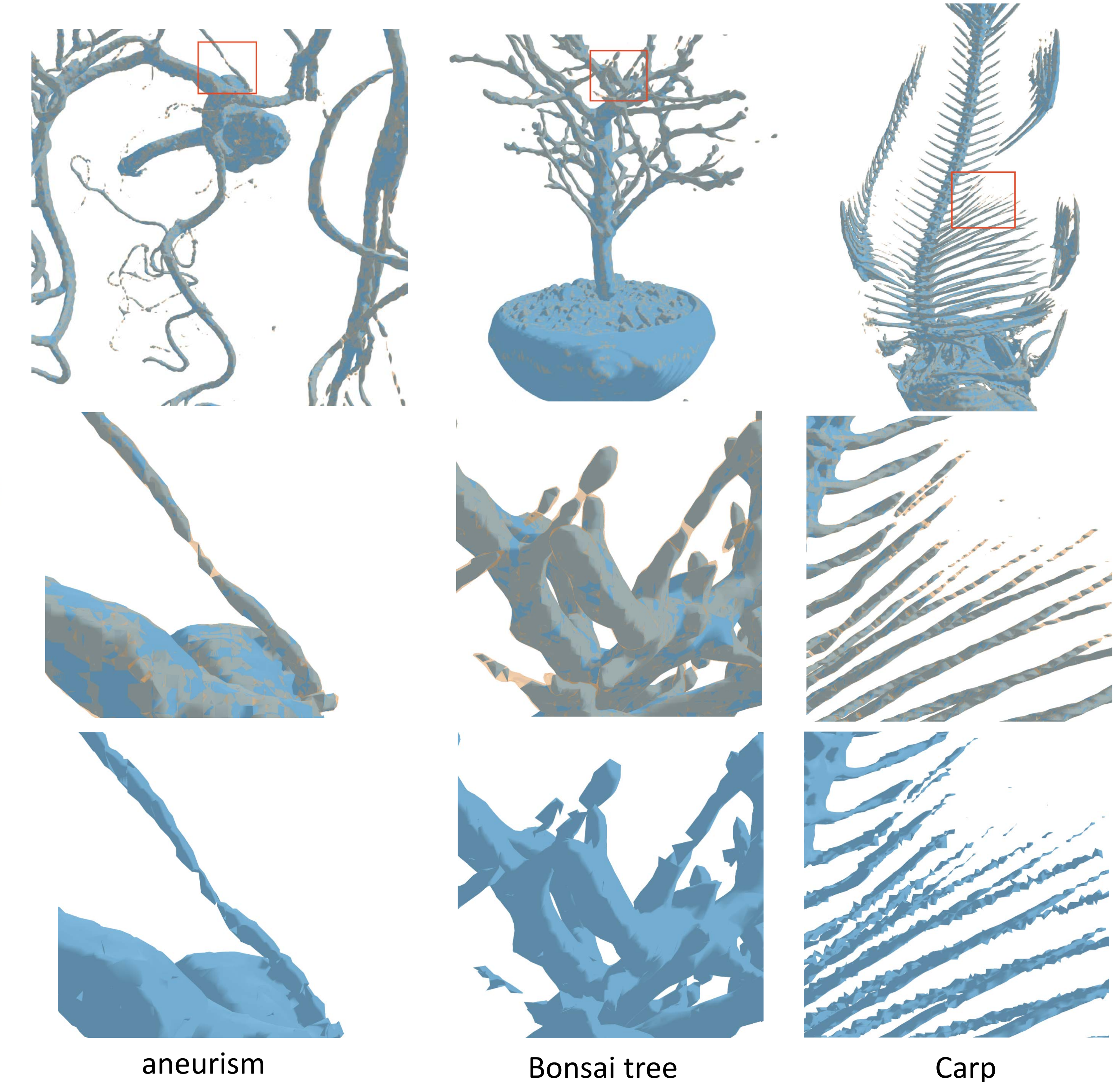- Enable comparison of different methods for surface extraction

Edge-Crossing Error

Max and RMS errors Tangle

Tangle

Torus

Teardrop

Feature Uncertainty

Teardrop

Tubey

Results

aneurism

Bonsai tree

Carp

Interactive uncertainty Vis Interface