

High-Quality Surface Splatting on Today's GPUs

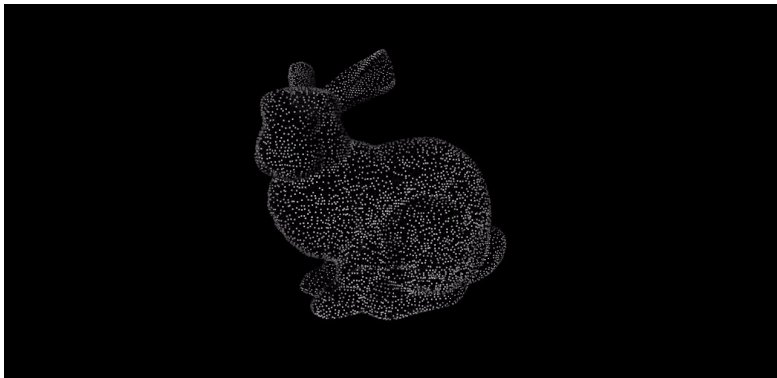
Stefan Zaufl, Dominik Schörkhuber

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Splatting

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Compute the Splat Attributes

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Point P, where we want to compute Normal and SplatAxis

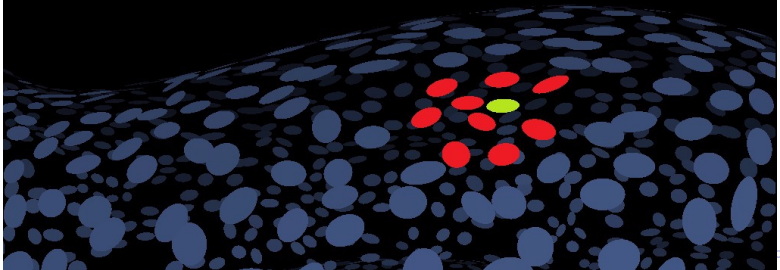
K-Neighborhood

Fit a plane through selected points (principal component analysis)

Compute eigenvalues of covariance

-- smallest eigenvalue is normal

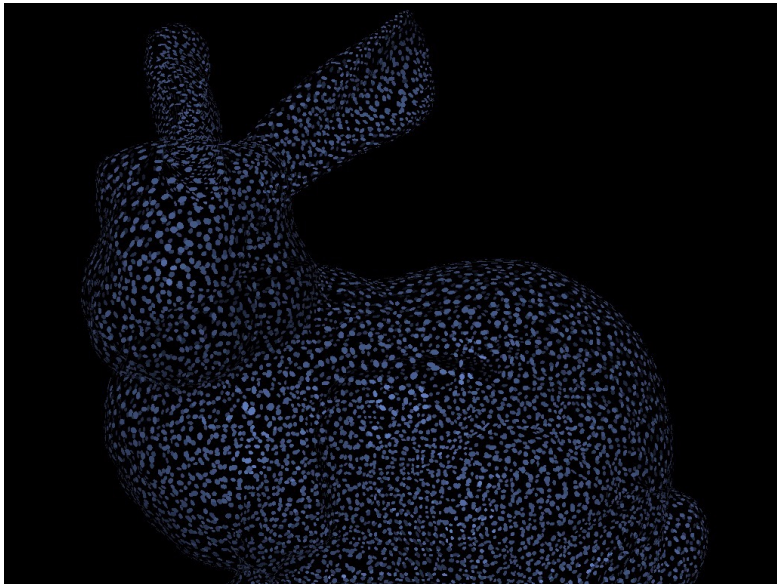
-- other two describe splat size



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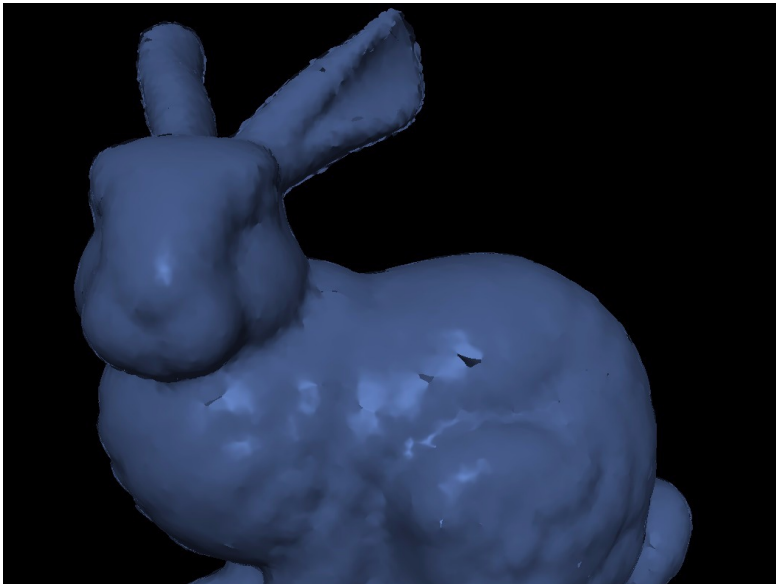
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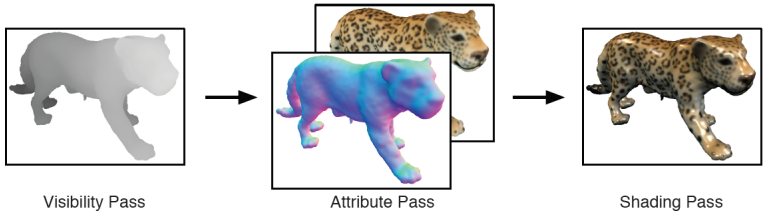
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Deferred Rendering Pipeline

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- 1 Identify visible points
- 2 Accumulate attributes
- 3 Normalization and shading

EWA Filtering

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