Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

computer graphics laboratory

MATHEMATICAL FOUNDATIONS OF COMPUTER GRAPHICS AND VISION

EXERCISE 3 - MLS FOR CURVES, MESHES AND IMAGES

Errata

Smoothing meshes. Project each vertex coordinate $\mathbf{v}$ of the mesh by $\mathbf{v}' = \mathbf{v} - f(\mathbf{x})\nabla f(\mathbf{x})$, where $f(\mathbf{x})$ is the same as in the first task. This will give you new smoothed coordinates $\mathbf{v}'$ of the mesh vertices.

- The previous bunny mesh had problems with the normals (it was in the wrong format). Please use the new mesh available on the website, along with code to calculate the normals (provided).
- The expression for $\nabla f(\mathbf{x})$ can be derived on paper - use the chain rule, the result is a long formula :) . The answer is not the same as the one in the attached paper (but part of it is similar)