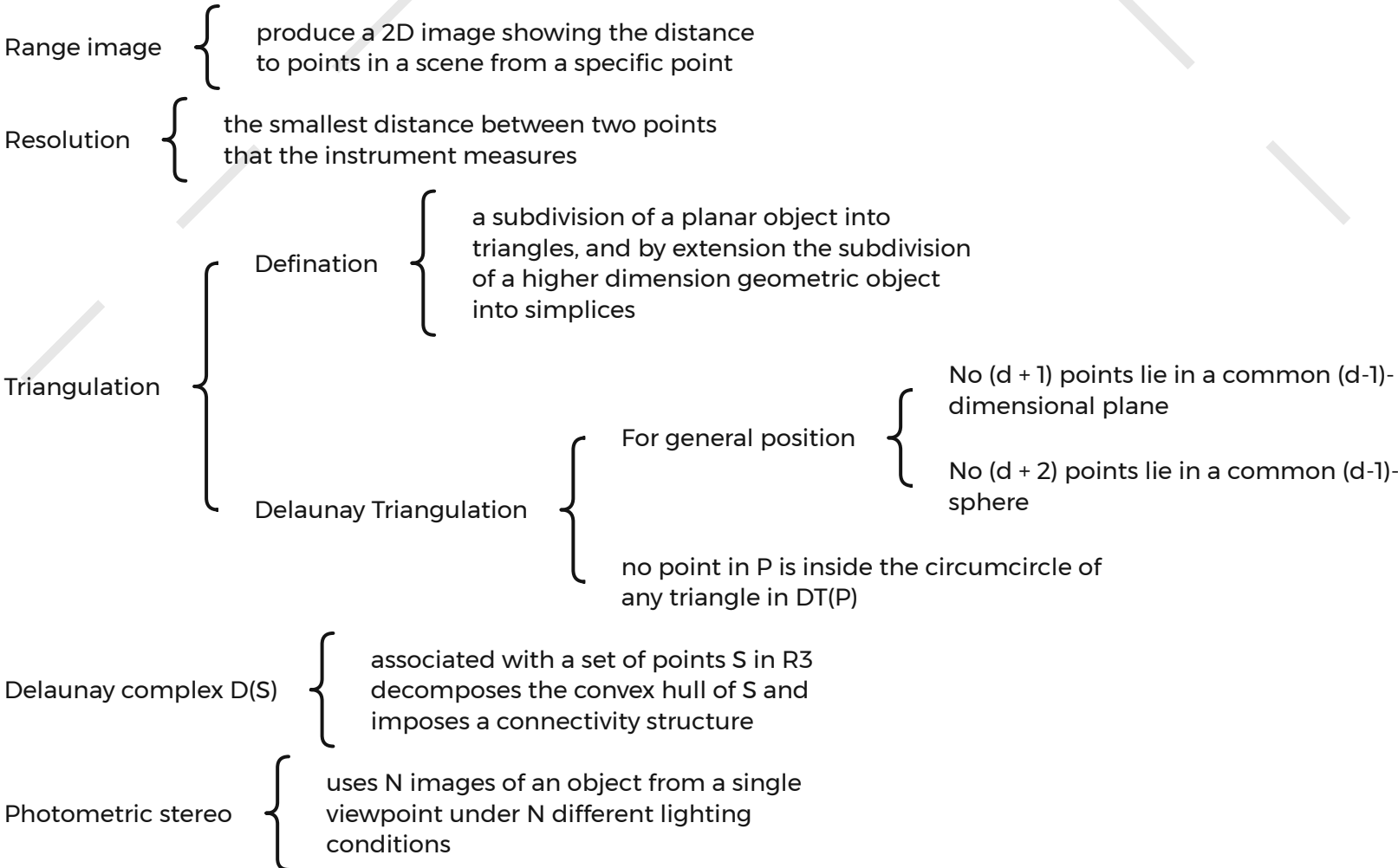


Attention: This is a 2002 Eurographics paper, something in it may be out-of-date.

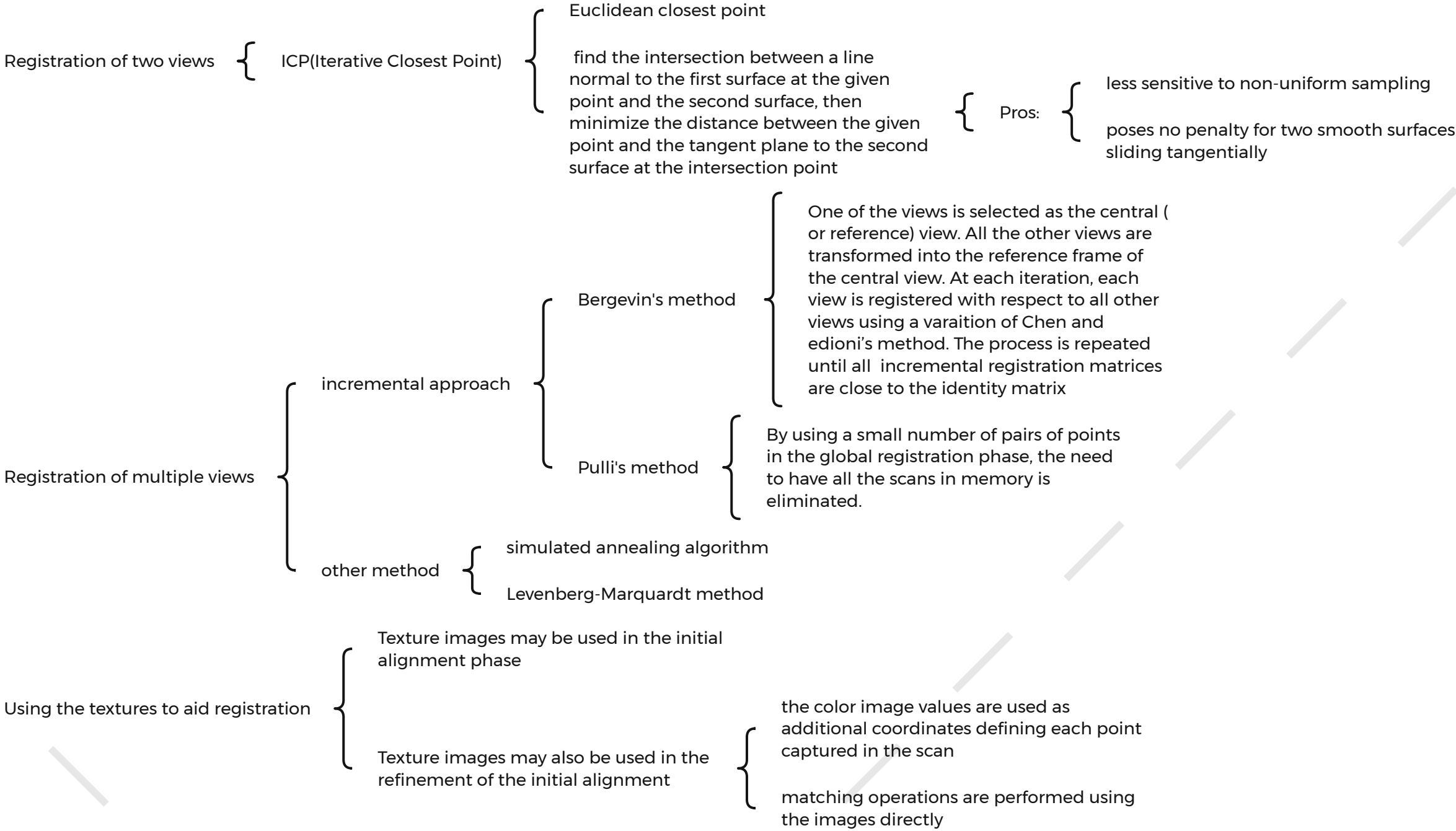
Basic



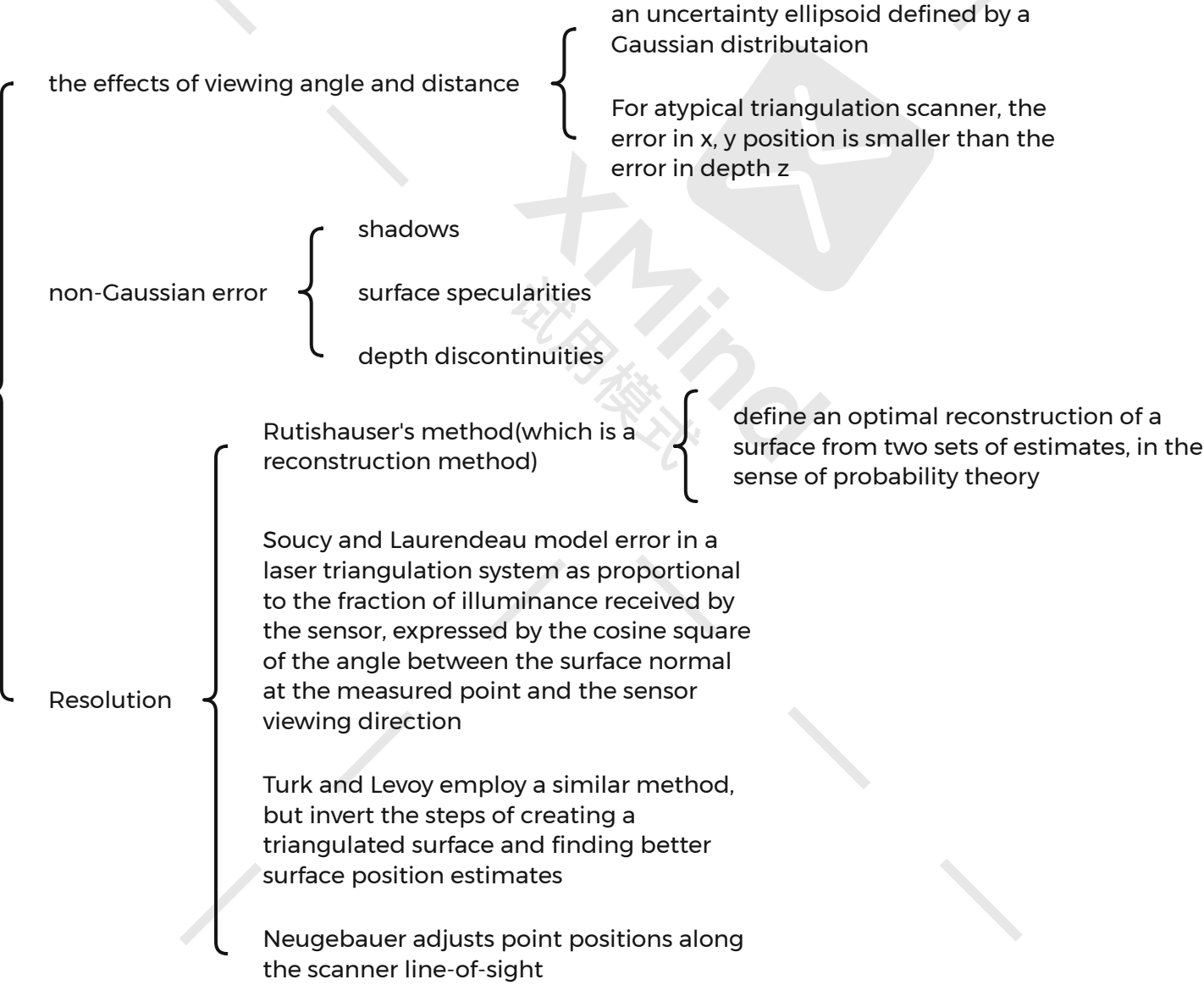
Range Scanners

- Triangulation systems
- Time-of-flight systems

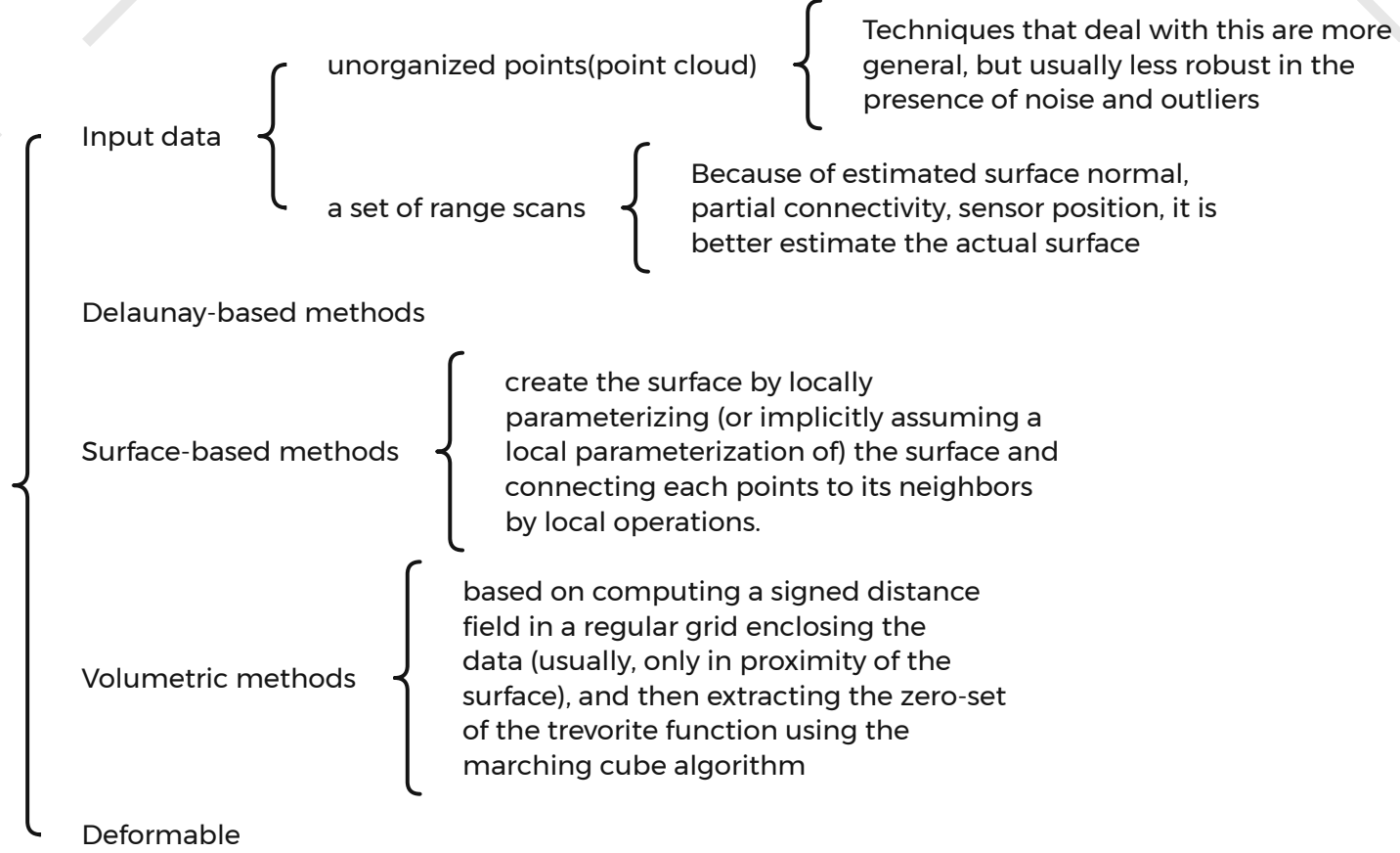
Registration



Line-of-sight Error



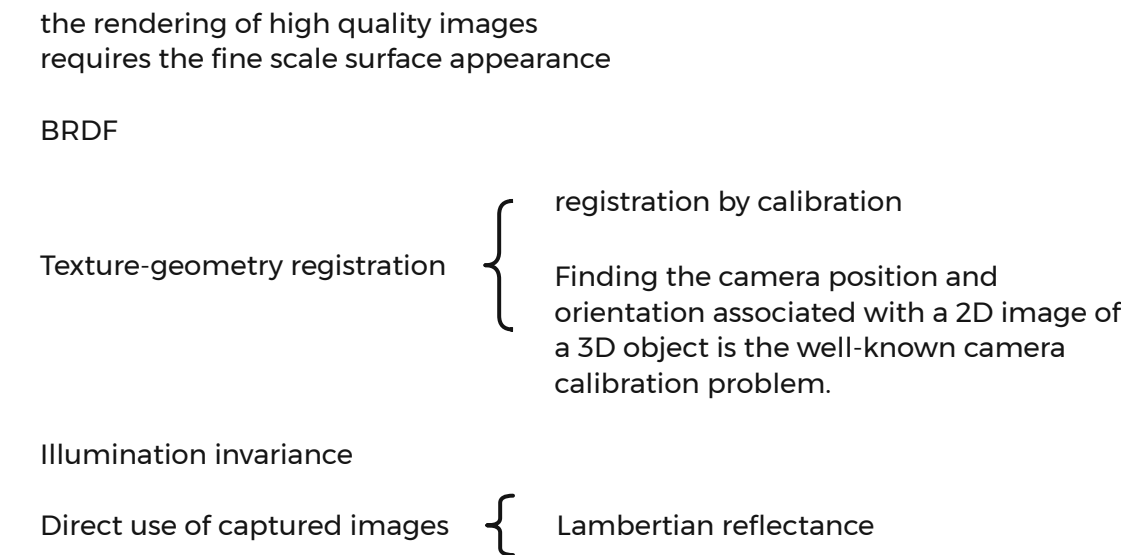
Scan Integration



Postprocessing

- common use of mesh simplification

Texture



Texture Map Reconstruction

- combining all the texture maps acquired for an object into a single non-redundant map over the entire object
- Methods for reconstructing texture from sets of images have in common that for each texture image, the triangles visible in that image are identified.

Need of improvement

- planning method for data acquisition
- reliable capture and robust processing of data for a larger class of objects, including large size objects, environments, and objects with challenging surface properties
- automation of all the steps, to minimize user input
- real-time feedback of the acquired surface
- improved capture and representation of surface appearance
- methods for assessing global model accuracy after range scan registration

The 3D Model Acquisition Pipeline