

Surface Reconstruction Using Orthogonal Sections

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Abstract

The surface reconstruction problem from sets of planar parallel slices representing cross sections through 3D objects is presented. The final result of surface reconstruction is always based on the correct estimation of the structure of the original object. This paper is a case study of the problem of the structure determination. We present a new approach, which is based on considering mutually orthogonal sets of slices. A new method for surface reconstruction from orthogonal slices is described and the benefit of orthogonal slices is discussed too. The properties and sample results are presented as well.