

## **A hybrid scheme for interactive rendering a virtual environment**

Lee, Tong-Yee ; Lin, Ping-Hsien; Yang, Tz-Hsien

### **Abstract**

A virtual environment can consist of both simple and complex 3D objects. The number of polygons for complex objects can dominate the total number of polygons in a scene. In this paper, we create depth images for these complex objects to allow interactive rendering a virtual environment. Arbitrary views of these complex objects are synthesized using these pre-rendered depth images as well as original polygons in the scene. To reduce the number images stored, we choose the smallest set from a large set of initial images of these objects. We show the preliminary results from applying the proposed method to accelerate the interactive walkthrough of a virtual environment.