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基于圆域的图形绘制方法

张运义[1,2]，冯月萍[1,2]， 钟惠湘[1,2]

1. 吉林大学 计算机科学与技术学院，长春 130012; 2.吉林大学 符号计算与知识工程教育部重点实验室，长春 130012

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摘要 通过研究基于点的计算机真实感绘制技术，提出了一种新的造型绘制方法——基于圆域的图形绘制方法。该方法不同于传统的网格造型，而是仅以三维物体上的点进行造型，并将点扩展成圆作为基本绘制元素，通过剔除背向点、投影和平滑填补空隙等操作得到物体的真实感图形。该方法数据结构简单、存储空间小、绘制速度快且易于实现，并且能获得较高的真实感效果。

关键词 计算机应用,点域绘制,背向点剔除, 圆投影, 填补空隙

分类号 TP391

Drawing technique based on circle field

ZHANG Yun-yi[1,2], FENG Yue-ping[1,2], ZHONG Hui-xiang[1,2]

1.College of Computer Science and Technology, Jilin University, Changchun 130012, China; 2.Key Laboratory of Symbolic Computation and Knowledge Engineering of Ministry of Education, Jilin University, Changchun 130012, China

Abstract On the basis of research on the computer reality sense drawing technique based on the point, a new drawing technique based on the circle field was proposed. Differing from the traditional drawing technique based on the mesh, the new technique uses the points on the 3 dimensional object to construct a model.The points then are expanded to circles to form the basic drawing elements, and a realistic image can be obtained by removing back points,projecting circles onto screen and filling gaps smoothly.The proposed technique is characterized by simple data structure,small storage space requirement,fast drawing and easy to realize,providing a image with good reality sense.

Key words computer application point based drawing back point removing circle projection gap filling

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通讯作者 冯月萍 fengyp@jlu.edu.cn