

论文与报告

一种新的被遮挡的光滑边界与错觉轮廓的感知修复模型

刘海鹰, 黄胜华, 洪继光

国家专用集成电路设计工程技术研究中心中国科学院自动化研究所, 北京

收稿日期 1997-10-21 修回日期 网络版发布日期 接受日期

摘要

研究了被遮挡的光滑边界与错觉轮廓的构造问题. 提出了一种基于心理学假设的构造模型. 该模型利用在关键点上分布的电荷所激发的电场来模拟引力场, 并定义了场激发子及其引力, 同时构造了一个图来解决分组问题. 通过该模型能高效地构造出被遮挡边界与错觉轮廓. 应用范例证明了该模型的有效性.

关键词 [被遮挡边界](#) [错觉轮廓](#) [引力场](#) [修复场](#)

分类号

A New Model of Perceptual Completion for Occluded Smooth Boundary and Illusory Contour

LIU Haiying, HUANG Shenghua, HONG Jiguang

National ASIC Design Engineering Center of China Institute of Automation, Chinese Academy of Sciences, Beijing

Abstract

A novel model for constructing the occluded smooth boundary and illusory contour is presented. The model is based on an assumption that the boundary completion depends on some field attraction. An electric field generated by charges artificially distributed on key points of boundary fragments is selected to imitate the attraction. Then, the field stimulator and attraction are also defined according to electromagnetic theory. Moreover, a graph is constructed to solve the global grouping problem. By using this model, the occluded boundary and illusory contour can be quickly constructed without complex computing. A group of occluded boundary and illusory contour stimuli including an application is used to demonstrate the efficiency of our model.

Key words [Occluded boundary](#) [illusory contour](#) [attracting field](#) [perceptual completion](#)

DOI:

通讯作者

作者个人主页 刘海鹰; 黄胜华; 洪继光

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF \(654KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献\[PDF\]](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中包含“被遮挡边界”的相关文章](#)
- ▶ 本文作者相关文章

- [刘海鹰](#)
- [黄胜华](#)
- [洪继光](#)