理论科学研究

有遮挡三维草图的标注完备集

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摘要 线型标注是三维草图语义描述的基本方法。已有工作大都应用三维实体精确投影图所产生的标号集来标注规整后的草图，没有实现真正意义上的三维草图标注。研究积木世界三维草图的标注问题，提出了一个有遮挡三维草图标注的标号集，并证明了其完备性。该标号集能够直接标注草图而无需对草图进行规整，从而实现了真正意义上的三维草图标注，为三维草图语义描述提供了一种新思路。

关键词 三维草图理解 语义描述 线型标注 完备性

分类号

Complete labeling set for 3D-sketch with occlusion

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Abstract

Line labeling is an essential approach to spatial semantics representation for 3D-sketch.Almost all of the previous works converted sketches to tidy line drawings before labeling，as they used the label sets derived from perfect projections of 3D objects.This paper addresses 3D-sketch labeling problem in the blocks world，and proposes a complete labeling set for 3D-sketch with occlusion，which can be used to label 3D-sketches directly without tidying.This label set can not only realize the labeling of true 3D-sketch，but also shed new light on the semantics representation of 3D-sketch.

Key words 3D-sketch understanding semantics representation line labeling completeness

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