

理论研究

对象族拓扑约束求解的研究

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摘要 针对当前对象族模型在求解拓扑约束时存在的缺陷, 提出一种求解拓扑约束的新方法, 这种方法在求解拓扑约束时, 把拓扑约束映射为布尔约束满足问题, 通过用SAT求解器求解布尔约束来求解拓扑约束。实践证明, 该方法不仅直接关联与拓扑约束指定的特征的语义, 而且当模型中存在大量相交的特征时也是可行的, 提高了拓扑约束求解的效率。

关键词 [对象族](#) [拓扑约束](#) [布尔约束](#)

分类号

Study of topological constraints solving for families of objects

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Abstract

According to the limitation of the current families of objects modeling system's constraint resolution mechanism for topological constraints. This paper presents a new technique that solves topological constraints. The system of topological constraints is mapped to a Boolean constraint satisfaction problem. The topological constraints is solved by solving this problem using a SAT solver. The study on the solving topological constraints is a new, interesting development in CAD and has great significance.

Key words [families of objects](#) [topological constraints](#) [boolean constraints](#)

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