

图形、图像、模式识别

## 四面体网格散列可视化测试方法研究

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**摘要** 三维网格生成技术在有限元分析、科学计算可视化和地理信息系统等领域的应用极为广泛, 一直是学者们研究的热点问题。众多网格生成技术都无法避免所生成的网格出现错误。现有的网格测试方法多基于空间抽样数据, 工作量大且缺乏直观性, 容易出现误测和漏测。提出的四面体网格散列可视化测试方法, 通过局部变换将三维网格散列显示出来, 清晰地呈现出网格的细节, 网格测试变得更直观便捷, 测试的准确性得到了提高。

**关键词** [四面体网格](#) [散列可视化](#) [网格测试](#) [局部变换](#)

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## Study on tetrahedral mesh measuring with dispersing visualization method

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### Abstract

Automatic 3-D mesh generation technology has been applied very widely in finite element analysis, visualization in scientific computing and GIS. It has always been a research focus of scholars. Numerous mesh generation technologies can't avoid error of mesh. Because of heavy workload and not visualization, misjudge or undetected problem are always caused in mesh testing which is based on sampling spatial data. The tetrahedral mesh measuring with dispersing visualization method is presented. Using local transformation, 3-D Mesh have been displayed dispersedly, details of mesh is showed clearly. The mesh measuring is more intuitive and convenient, and the accuracy of the test is also enhanced.

**Key words** [tetrahedral mesh](#) [dispersion visualization](#) [mesh measuring](#) [local transformation](#)

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