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### **Abstract**

Soft tissue modeling is the process of representing soft tissues present in human skin. Modeling and simulation in the field of medical applications related to virtual surgery has increased the need for creating high quality meshes using various techniques. This paper focuses on Delaunay model representation because it has many desirable qualities suitable for practical applications. Most commonly triangular and tetrahedral mesh techniques utilizes Delaunay criterion. This paper compares the accuracy of triangular and tetrahedral meshes. Some surgery requires minute information and some might not, so accuracy depends on the model. We hope that this comparison methodology used here makes it easier for others to choose and build the model for proper applications.

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### Index Terms

Computer Science

Information Sciences

### **Keywords**

Two Dimension (2d) Three Dimension (3d) Visualization Tool Kit (vtk) Central Processing Unit (cpu).