

Graphics Lunch
“Searching for the Shape”
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Abstract:

The abundance of 3D data that is generated and used by multimedia and CAD activities has created an explosion of three dimensional artifacts. A new system for storing and retrieving the 3D data based on shape is necessary to organize the databases of 3D models. In general similarity based on the shape of an object is subjective and dependent on the domain and purpose of the intended task. Hence the shape descriptor used for shape matching should be able to capture the various aspects of the shape of the object. It is known that the shape of an object comprises of information pertaining to the geometry and topology of the object. Different researchers have focused on different information sets emphasizing various shape attributes. The quest for the ideal shape descriptor which can describe the shape of an object in different levels of abstraction, partial/local and global, is on. The effect of a shape retrieval system based on such a descriptor is far reaching including a multitude of application areas like Computer animation, Computer vision, Object recognition, 3D Data compression & transmission, Product Design, Part warehousing etc...