

ADVANCED MEDICAL APPLICATIONS

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Summary

This talk summarises the application of techniques developed over the recent years for visualising volumetric medical data. Such data are very common in modern medical imaging modalities such as CT, MRA, MRI, PET, SPECT, Nuclear Medicine (gamma camera), 3D-Ultrasound, Laser Confocal Microscopy etc. The rich literature in this topic is organised and presented in an ordered way.

The focus is on the applicability of algorithms and rendering techniques and their benefits and potential in the medical environment. Moreover, there is a special focus on NEW 3D applications avoiding repetition of well-known existing paradigms.

Applications from the above areas are presented, technical details are explained, different techniques are compared. Their benefits and limitations are analysed, and the availability of each technique for different types of medical data will be evaluated with examples.