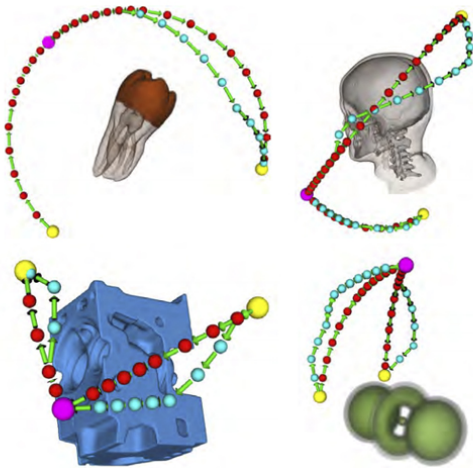


Efficient Selection of Representative Views and Navigation Paths for Volume Data Exploration

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The visualization of volumetric datasets, quite common in medical image processing, has started to receive attention from other communities such as scientific and engineering. The main reason is that it allows the scientists to gain important insights into the data. While the datasets are becoming larger and larger, the computational power does not always go hand to hand, because the requirements of using low-end PCs or mobile phones increase. As a consequence, the selection of an optimal viewpoint that improves user comprehension of the datasets is challenged with time consuming trial and error tasks. In order to facilitate the

exploration process, informative viewpoints together with camera paths showing representative information on the model can be determined. In this paper we present a method for representative view selection and path construction, together with some accelerations that make this process extremely fast on a modern GPU.