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COMPUTATIONAL BIOIMAGING AND VISUALIZATION

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ABSTRACT

In recent years extensive research has been performed in object modelling and visualization for several distinct areas of science, namely, medicine, physics, mathematics, engineering, computers and informatics. A major application of object modelling and visualization is in medicine. For instance, it is possible to use computational procedures based on medical images to model and visualize human organs. These procedures can have different goals, such as shape reconstruction, segmentation, motion and deformation analyses, registration, simulation, visualization, etc.

The main goal of the proposed Minisymposium is to bring together researchers involved in the related fields (Image Acquisition, Image Segmentation, Objects Tracking, Objects Matching, Shape Reconstruction, Motion and Deformation Analysis, Medical Imaging, Scientific Visualization, Software Development, Grid Computing, etc.), in order to set the major lines of development for the near future.

The proposed Minisymposium will consist of researchers representing various fields related to Computational Vision, Computer Graphics, Computational Mechanics, Scientific Visualization, Mathematics, Statistics, Medical Imaging, etc. The Minisymposium endeavors to make a contribution to achieving better solutions for more realistic computational "living" models, and attempts to establish a bridge between clinicians and researchers from these diverse fields.