

Abstract: "Biomedical Imaging: Challenges and Chances for Computer Vision"

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With the widespread use of imaging technologies in basic research and routine clinical practice, medical researchers and physicians are faced with analyzing an ever-increasing amount of complex image data. Also in biology imaging has become an indispensable tool, for instance for behavior studies of small animals. Many computer vision algorithms have been successfully adapted and applied to biomedical imaging applications. However, the specific characteristics of biomedical image data pose new challenges and force researchers to develop novel concepts and algorithms. In fact, biomedical imaging can be seen as another driving force for computer vision research. This talk emphasizes this fundamental research view of biomedical computer vision. A variety of topics will be motivated by current research in biology and medicine. The related challenges, concepts, and algorithms will be discussed.