Analysis and Visualization of Biomedical Visual Data
Special Track (ST5) at
4th International Symposium on Visual Computing (ISVC)
Las Vegas, Nevada, USA (Monte Carlo Resort & Casino)
1-3 December 2008 http://www.isvc.net

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ISVC Keynote Speaker (3 Dec, 2-3 PM): Prof. W. Eric L. Grimson, MIT, USA

Best Paper Award: Sponsor: Informatics Circle of Research Excellence (iCORE), Alberta, Canada

Scope and Topics

Biomedical applications have become a major research focus in computer vision, image processing, computer graphics and visualization, as well as in virtual reality, intelligent search and retrieval, and human computer interaction. Traditional biomedical visual data analysis techniques focus on 2D data, but the area has increasingly been extended to multi-dimensional and multi-modal data models, which provide additional information and complexity. Numerous challenges exist in medical visual data research such as data precision and quality, handling large volume data sets, feature recognition using mixed modalities, and visual understanding of multiple image sets.

In order to provide a platform for presenting state-of-the-art research on multi-dimensional and multi-modal biomedical data analysis and visualization, this Special Track invites contributions in (but is not limited to) the following topics:

a) Novel methods to analyze and measure 2D, 3D or higher dimensional biomedical data.
b) Techniques to improve the quality of biomedical visual data captured at low resolution.
c) Multi-modal, multi-dimensional biomedical visual data registration and visualization.
d) e-Health applications involving biomedical visual data including remote diagnosis and surgery, clinical training and education.
e) Large scale biomedical visual data optimization and visualization in immersive virtual reality, augmented reality or mixed reality environments, including applications on large dimension, multi-panels, stereo and free-viewpoints displays.
f) Intelligent search and retrieval of biomedical visual data from centralized or distributed repositories.
g) Image guided surgery and virtual reality environments for internal clinical procedures.
h) Human Computer Interface design and perceptual issues relating to biomedical visual data visualization, including haptic devices and eye-tracking devices.
i) Security, privacy, data compression and visual quality issues in biomedical visual data access, including digital watermarking, and mobile devices.

Important Dates

Full paper submissions	Monday **July 21**, 2008
Notification of acceptance	Monday **September 1**, 2008
Final camera ready final paper	Monday **September 15**, 2008

All submissions will be subject to the standard ISVC peer reviewing process, which will be handled electronically online through http://www.isvc.net
All papers accepted will appear in the symposium proceedings which will be published by Springer-Verlag in the series *Lecture Notes in Computer Science (LNCS)*.
Please refer to the ISVC 2008 Call for Papers Section in the above website, for more details.