Special Track: **Biomedical Imaging Techniques for Cancer Detection, Diagnosis and Management**

19th International Symposium on Visual Computing
Lake Tahoe, NV, USA
October 21-23, 2024
http://www.isvc.net

Scope

Multiple biomedical imaging modalities are used in cancer detection, diagnosis and management including X-ray (plain film and Computed Tomography (CT)), Ultrasound (US), Magnetic Resonance Imaging (MRI), Single-Photon Emission Computed Tomography (SPECT), Positron Emission Tomography (PET), Optical Imaging and Digital Pathology. These imaging modalities form an essential part of cancer clinical decision making and are able to furnish morphological, structural, metabolic and functional information. In particular, biomedical imaging has become an important element for early cancer detection, determining the stage and the precise locations of cancer to aid in directing surgery and other cancer treatments, or to check if a cancer has returned.

This special track invites research contributions on innovative biomedical imaging techniques for cancer screening, diagnosis and staging, guiding cancer treatments, determining if a treatment works, and monitoring for cancer recurrence. Of particular interest are research contributions employing modern computer vision techniques, powered by AI, statistical and machine/deep learning models, addressing the above challenges.

Topics

Topics of interest include but are not limited to:

- Biomedical image analysis (e.g., detection, segmentation, classification, registration)
- Computer-aided detection/diagnosis of various cancers in biomedical images

- Multi-modality fusion (e.g., MRI/PET, PET/CT, X-ray/ultrasound, etc.) for diagnosis, image analysis and image-guided interventions
- Image reconstruction for biomedical imaging
- Cellular image analysis (e.g., genotype, phenotype, classification, identification, cell tracking)
- Molecular/pathologic image analysis (e.g., PET, digital pathology)
- Statistical and machine/deep learning models for biomedical image analysis
- Evaluating and interpreting machine/deep learning models
- Designing and building interfaces between algorithms and clinicians

Organizers (incomplete list)

George Bebis, University of Nevada, Reno, NV, USA
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Important Dates

Same as ISVC deadlines. Please visit: http://www.isvc.net/

Paper Submission Instructions

Same as ISVC paper submission instructions, see http://www.isvc.net/index.php/paper-submission/