# **Special Track:** Computational Vision, AI and Mathematical Methods for Biomedical and Biological Image Analysis

**14th International Symposium on Visual Computing**

Lake Tahoe, Nevada, USA

October 7-9, 2019

http://www.isvc.net

## Scope

Biomedical imaging has emerged as a major technological platform for disease diagnosis, clinical research, drug development and other related domains due to being non-invasive and producing multi-dimensional data. An abundance of imaging data is collected, but this wealth of information has not been utilized to full extent. Therefore, there is a need for introduction of biomedical image analysis techniques that are accurate, reproducible and generalizable to large scale datasets.

Identification of imaging patterns in an anatomical site or an organ at the macroscopic or microscopic scale may guide characterization of abnormalities and estimation of disease risk, analysis of large scale clinical datasets, and assessment of intervention therapy techniques.

This special track solicits original and good-quality papers for delineating, identifying and characterizing novel biomedical imaging patterns. These methods may aim for segmentation, identification and quantification of anatomies, characterization of their properties, and classification of disease. These approaches may be applied to radiological imaging such as CT, MRI and ultrasound, or imaging at the cellular scale such as microscopy and digital pathology techniques.

Extended versions of papers accepted for this special track will be considered for publication in the journal of Frontiers in Computer Science – please see link.

## Topics

Topics of interest include, but are not limited, to the following areas:

- Machine/Deep Learning for Computer-aided Diagnosis and Prognosis

- Biomedical Image Segmentation and Registration
- Radiomics, Immunotherapies, Digital Pathology
- Cell Segmentation and Tracking

## Organizers

**Sokratis Makrogiannis**, Delaware State University, USA, smakrogiannis@desu.edu

**Alberto Santamaria-Pang**, General Electric Global Research, USA, santamar@ge.com

## Program Committee

**Ming-Ching Chang**, University at Albany-State University of New York, USA
**Gurman Gill**, Sonoma State University, USA
**Rachid Jennane**, University of Orléans, France
**Uday Kurkure**, Roche, USA
**Bennett Landman**, Vanderbilt University, USA
**Mirabela Rusu**, Stanford University, USA
**Andrea Salgian**, The College of New Jersey, USA
**Harini Veeraraghavan**, Memorial Sloan Kettering Cancer Center, USA
**Pinkung Yan**, Rensselaer Polytechnic Institute, USA

## Important Dates

See http://www.isvc.net/

## Paper Submission Procedure

See http://www.isvc.net/index.php/paper-submission/