



International Conference on Image Processing Theory, Tools & Applications



<http://www.ipta-conference.com/ipta22/>

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Special session title:

Biological & Medical Image Analysis

Aims & Scope

Cutting-edge digital imaging technology revealing structural and functional properties of biological systems exhibits a source for huge amounts of valuable information. To allow effective and objective studies and draw useful conclusions in medicine and biology, automated image analysis methods are indispensable tools. Due to time- and cost restrictions, often flexible methods are needed which do not necessarily require huge amounts of manually annotated training data to generate reasonable outcomes. A further important feature is explainability and transparency to obtain high confidence in turn enabling an effective integration into clinical workflows.

The focus of this special session is on methods for biological and medical image analysis. We particularly invite contributions introducing novel approaches for or performing empirical studies on digital histology, radiology (X-ray, CT, MRI, PET/SPECT), endoscopy, optical coherence tomography and dermatoscopy (but not limited to).

Topics of Interest

The session welcomes papers on the following research topics (but not limited to):

- *Image segmentation*
- *Computer-aided detection, diagnosis, staging, classification, regression*
- *Computer-aided decision support systems*
- *Image enhancement (image translation)*
- *Image reconstruction*
- *Image registration*
- *Multi-modal image processing*
- *Computer assisted interventions*