

Workshop BioImage Computing ECCV 2020 - Session 1

Segmentation 1

Feedback Attention for Cell Image Segmentation

Hiroki Tsuda, Eisuke Shibuya, Kazuhiro Hotta

Attention Deeplabv3+: Multi-level Context Attention Mechanism for Skin Lesion Segmentation

Reza Azad, Maryam Asadi-Aghbolaghi, Mahmood Fathy, Sergio Escalera

DoubleU-Net: Colorectal Cancer Diagnosis and Gland Instance Segmentation with Text-Guided Feature Control

Pei WANG, Albert Chung

DenoiseSeg: Joint Denoising and Segmentation

Tim-Oliver Buchholz, Mangal Prakash, Deborah Schmidt, Alexander Krull, Florian Jug

Computational Imaging

Invited Talk: Wei Ouyang

Multi-CryoGAN: Reconstruction of Continuous Conformations in Cryo-EM Using Generative Adversarial Networks

Harshit Gupta, Thong Huy Phan, Jaejun Yoo, Michael Unser

Learning to Restore ssTEM Image from Deformation and Corruption

Wei Huang, Chang Chen, Zhiwei Xiong, Yueyi Zhang, Dong Liu, Feng Wu

Improving Blind Spot Denoising for Diffraction-Limited Microscopy Data

Anna S. Goncharova, Alf Honigmann, Florian Jug, Alexander Krull

Time Series 1

Invited Talk: Virginie Uhlmann

Bionic Tracking: Using Eye Tracking to Track Biological Cells in Virtual Reality

Ulrik Günther, Kyle I.S. Harrington, Raimund Dachsel, Ivo Sbalzarini

Cardiac MR Image Sequence Segmentation with Temporal Motion Encoding

Pengxiang Wu, Qiaoying Huang, Jingru Yi, Hui Qu, Meng Ye, Leon Axel, Dimitris N. Metaxas

Workshop BioImage Computing ECCV 2020 - Session 2

Classification and Denoising

Automated Assessment of the Curliness of Collagen Fiber in Breast Cancer

David Paredes, P. Prasanna, C. Preece, R. R. Gupta, F. Fereidouni, D. Samaras, T. Kurc, R. M. Levenson, P. Thompson-Carino, Joel Saltz, Chao Chen

Classifying Nuclei Shape Heterogeneity in Breast Tumors with Skeletons

Brian Falkenstein, Adriana Kovashka, Seong Jae Hwang, S Chakra Chennubhotla

Dynamic Image for 3D MRI image Alzheimer's Disease classification

Xin Xing, Gongbo Liang, Hunter Blanton, M. Usman Rafique, Chris Wang, Ai-Ling Lin, Nathan Jacobs

W2S: Microscopy Data with Joint Denoising and Super-Resolution for Widefield to SIM Mapping

Ruofan Zhou, Majed El Helou, Daniel Sage, Thierry Laroche, Arne Seitz, Sabine Süsstrunk

Time Series 2

Invited Talk: Kristin Branson

Invited Talk: David Van Valen

Registration of multi-modal volumetric images of embryos by establishing correspondences between cells

Manan Lalit, Florian Jug, Pavel Tomancak

Segmentation 2

Invited Talk: Constantin Pape

Invited Talk: Kisuk Lee

Learning to segment microscopy images with lazy labels

Rihuan Ke, Aurelie Bugeau, Nicolas Papadakis, Peter Schuetz, Carola-Bibiane Schönlieb

Probabilistic Deep Learning for Instance Segmentation

Josef Lorenz Rumberger, Lisa Mais, Dagmar Kainmueller