

On-site schedule for MICCAI 2018 (16 September 2018)

Brain-Lesion workshop (**BrainLes**)

Brain Tumor Segmentation (**BraTS**) Challenge

Ischemic Lesion Segmentation (**ISLES**) Challenge

09:30-11:00 BrainLes Session 1

09:30-09:35 :: Introduction to the Brain-Lesion (BrainLes) workshop

09:35-10:00 :: **Invited Speaker (Clinical Perspective):**

Thomas C. Booth, EDiNR DMCC MBBS MA MRCP FRCR Ph.D., King's College, London, UK.

[‘Update on Machine Learning in Neuro-Oncology Diagnostics’](#)

10:00-10:12 :: [“Pathology Segmentation using Distributional Differences to Images of Healthy Origin”](#) (*Simon Andermatt, et al.*)

10:12-10:24 :: [“3D texture feature learning for noninvasive estimation of gliomas pathological subtype”](#) (*Guoqing Wu, et al.*)

10:24-10:36 :: [“Deep Autoencoding Models for Unsupervised Anomaly Segmentation in Brain MR Images”](#) (*Christoph Baur, et al.*)

10:36-10:48 :: [“Learning Data Augmentation for Brain Tumor Segmentation with Coarse-to-Fine Generative Adversarial Networks”](#) (*Tony C.W. Mok and Albert C.S. Chung*)

10:48-11:00 :: [“Multi-Institutional Deep Learning Modeling Without Sharing Patient Data: A Feasibility Study on Brain Tumor Segmentation”](#) (*Micah J Sheller, et al.*)

11:00-11:30 :: Coffee break

11:30-13:30 BrainLes Session 2 (BraTS Challenge)

11:30-11:35 :: Overview of the BraTS Challenge & Summary Statistics

11:35-12:00 :: **Invited Speaker (Brain Tumor Segmentation Meta-Analysis):**

Bjoern Menze, Ph.D. – Technical University of Munich, Germany.

[‘Final summarizing meta-analysis of the BraTS 2012-2016 results’](#)

12:00-12:05 :: Summary Statistics & Ranking Approach

12:05-13:10 :: Brief oral presentations (i.e. poster-teasers) of BraTS 2018 top-performing methods

13:10-13:30 :: Final results / Awards / Discussion

13:30-15:00 :: Lunch break / Poster session

15:00-16:30 BrainLes Session 3

15:00-15:05 :: Welcome to the 2nd half of the Brain-Lesion workshop

15:05-15:30 :: **Invited Speaker (Diffusion Imaging):**

Ragini Verma, Ph.D., University of Pennsylvania, Philadelphia, USA.

[‘Patho-connectomics of TBI and Tumors’](#)

15:30-15:42 :: [“Patient-Specific Registration of Pre-Operative and Post-Recurrence Brain Tumor MRI Scans”](#) (*Xu Han, et al.*)

15:42-15:54 :: [“Characterizing Peritumoral Tissue Using Free Water Elimination in Clinical DTI”](#) (*Abdol Aziz Ould Ismail, et al.*)

15:54-16:06 :: [“Multi-Stage Association Analysis of Glioblastoma Gene Expressions with Texture and Spatial Patterns”](#) (*Samar S. M. Elsheikh, et al.*)

16:06-16:18 :: [“Voxel-wise Comparison with a-contrario Analysis for Automated Segmentation of Multiple Sclerosis Lesions from Multimodal MRI”](#) (*Francesca Galassi, et al.*)

16:18-16:30 :: [“A Graph Based Similarity Measure for Assessing Altered Connectivity in Traumatic Brain Injury”](#) (*Yusuf Osmanlioglu, et al.*)

16:30-17:00 :: Coffee break

17:00-19:00 BrainLes Session 4 (ISLES Challenge)

17:00-17:05 :: Overview of the ISLES Challenge & Summary Statistics

17:05-17:30 :: **Invited Speaker (Optimized 3D Training on Full-Sized MRI Scans)**

G Anthony Reina, M.D., Ph.D., Intel Corporation, Santa Clara, USA.

[‘High memory considerations for inference & training deep learning models in medical imaging’](#)

17:30-17:55 :: **Invited Speaker (Clinical Perspective)**

Arsany Hakim, M.D., University Hospital, Bern, Switzerland.

[‘Basics of CT Perfusion’](#)

17:55-18:30 :: Oral presentation of top-performing methods

18:30-19:00 :: Final results / Awards / Discussion