

On-site schedule for 14 September 2017

Brain-lesion workshop (BrainLes),

Brain Tumor Segmentation (BraTS) Challenge

White Matter Hyperintensity (WMH) Segmentation Challenge

08:00-10:00 SESSION 1 (BrainLes)

08:00-08:05: Intro - Schedule

08:05-08:30:

- “Automated Segmentation of Multiple Sclerosis Lesions using Multi-Dimensional Gated Recurrent Units” *Simon Andermatt, Simon Pezold, Philippe C. Cattin*
- “Joint Intensity Fusion Image Synthesis Applied to Multiple Sclerosis Lesion Segmentation” *Greg M. Fleishman, Alessandra Valcarcel, Dzung Pham, Snehashis Roy, Peter Calabresi, Paul Yushkevich, Russell Shinohara, Ipek Oguz*

08:30-08:55: INVITED TALK: “Machine Learning for Lesion Detection, Segmentation and Prediction in MS Clinical Trials”

Tal Arbel, Ph.D. – McGill University, Montréal, Québec, Canada

08:55-09:35:

- “Generalised Wasserstein Dice Score for Imbalanced Multi-class Segmentation using Holistic Convolutional Networks” *Lucas Fidon, Wenqi Li, Luis C Garcia-Peraza Herrera, Jinendra Ekanayake, Neil Kitchen, Tom Vercauteren, Sebastien Ourselin*
- “Overall Survival Time Prediction for High Grade Gliomas based on Sparse Representation Framework” *Guoqing Wu, Yuanyuan Wang, Jinhua Yu*
- “Brain Cancer Imaging Phenomics Toolkit (brain-CaPTk): An Interactive Platform for Quantitative Analysis of Glioblastoma” *Saima Rathore, Spyridon Bakas, Sarthak Pati, Hamed Akbari, Ratheesh Kalarot, Patmaa Sridharan, Martin Rozycki, Mark Bergman, Ragini Verma, Michel Bilello, Christos Davatzikos*

09:35-10:00: INVITED TALK: “Radiomics and Radiogenomics of Brain Tumors”

Rivka Colen, M.D., Ph.D. – MD Anderson Cancer Center, University of Texas, USA

10:00-10:30: Coffee break

10:30-12:30 SESSION 2 (BraTS Challenge)

10:30-10:45: Welcome (Overview & Challenge Summary Statistics)

10:45-11:10: INVITED TALK: “Clinical Perspective of Computational Neuro-oncology”

Michel Bilello, M.D., Ph.D. – University of Pennsylvania, Philadelphia, PA, USA

11:10-12:20: Oral presentation of top-ranked methods (8+2 minutes each)

12:20-12:30: Final results / Awards / Discussion

12:30 - 13:30: Lunch break

13:30-15:30 SESSION 3 (WMH Challenge)

13:30-13:40: Welcome by WMH Challenge organizer

13:40-14:10: INVITED TALK: “Dice Overlap Measures for Multiple Objects: Application to Lesion Segmentation”

Jerry Prince, Ph.D. – Johns Hopkins University, Baltimore, Maryland, USA

14:10-15:00: Power pitches by participants (poster-teaser / posters during break)

15:00-15:30: Final results of WMH challenge + awards + discussion

15:30 - 16:00: Coffee break

16:00-17:30 SESSION 4 (BrainLes)

16:00-16:10: Intro

16:10-17:15:

- “MARCEL (inter-Modality Affine Registration with CorELation ratio): An Application for Brain Shift Correction in Ultrasound-Guided Brain Tumor Resection” *Nima Masoumi, Yiming Xiao, Hassan Rivaz*
- “Traumatic Brain Lesion Quantification based on Mean Diffusivity Changes” *Christophe Maggia, Thomas Mistral, Senan Doyle, Alexandre Krainik, Damien Gallaneau, Emmanuelle Schmitt, Stephane Kremer, Irene Tropes, Emmanuel Barbier, Jean-Fran,cois Payen, Michel Dojat*
- “Ordinal Outlier Analysis for Traumatic Brain Injury Detection” *Matt Higger, Martha Shenton, Sylvain Bouix*
- “Sub-Acute & Chronic Ischemic Stroke Lesion MRI Segmentation” *Senan Doyle, Florence Forbes, Assia Jaillard, Olivier Heck, Olivier Detante, Michel Dojat*
- “Brain Tumor Segmentation Using an Adversarial Network” *Zeju Li, Yuanyuan Wang, Jinhua Yu*

17:15-17:30: Adjourn