

MICCAI15 October 5th to 9th
Munich, Germany



ISLES CHALLENGE

Ischemic Stroke Lesion Segmentation

WHAT IS A MEDICAL IMAGE SEGMENTATION CHALLENGE?

Medical image processing comprises a large number of tasks, for which new methods are regularly proposed. But, more often than desirable, it is difficult to compare their fitness, as the reported results are obtained on private datasets. Challenges aim to overcome these shortcomings by providing (1) a public dataset that reflects the diversity of the problem and (2) a platform for a fair and direct comparison of methods with suitable evaluation measures. Thus, the scientific progress is promoted (see www.grand-challenge.org for a detailed rationale behind challenges).

WHAT IS ISLES?

ISLES is a medical image processing challenge for ischemic stroke lesion segmentation, organized as satellite workshop of the International Conference on Medical Image Processing and Computer Assisted Intervention (MICCAI) 2015. The organizers aim to provide a platform for a fair and direct comparison of methods for ischemic stroke lesion segmentation from multi-spectral MRI images. A public dataset of diverse ischemic stroke cases and a suitable automatic evaluation procedure will be made available for the two following tasks:

SISS: Automatic segmentation of sub-acute ischemic stroke lesion volumes from multi-spectral MRI sequences.

SPES: Automatic segmentation of acute ischemic stroke lesion volumes from multi-spectral MRI sequences.

HOW DOES IT WORK?

Interested participants can download a set of training cases with associated expert segmentations of the stroke lesions to train and evaluate their approach. Shortly before MICCAI 2015 takes place, a set of test cases will be made available and the participants upload their segmentation results (in the form of binary images) as well as a short paper describing their method. The organizers then evaluate each case and establish a ranking of the participating teams. At the MICCAI 2015 conference, the results will be presented in the scope of a workshop and the results discussed together with invited experts. Each team will present their method as a poster and, furthermore, a number of selected teams will have the opportunity to hold a small presentation detailing their method. After the challenge, the organizers and participants will together compose a high-impact journal paper to publish their findings.

www.ISLES-CHALLENGE.org



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