We aim at giving an overview of new advances of medical image analysis in glioma, multiple sclerosis, stroke and trauma brain injuries. We let researchers from the medical image analysis domain with radiologists and neurologists meet, and discuss these diseases and traumas, with the goal of comparing neuroimaging biomarkers which can be used on one or applied to the others.

We solicit manuscript that use methods of medical image analysis in at least one of the four diseases focusing on the following aspects:

- Lesion segmentation (glioma, multiple sclerosis, stroke, traumatic brain injuries).
- Longitudinal data analysis.
- Novel MRI sequences and contrast agents.
- Diffusion imaging.
- Clinical related aspects.
- Neurosonography.
- Connectomics.
- Dynamical models.

The event will be conducted jointly with the Brain Tumor Segmentation (www.braintumorsegmentation.org) and WMH Segmentation (wmh.isi.uu.nl) challenge.

ORGANIZERS:
Alessandro Crimi, African Institute for Mathematical Sciences  
Spyridon Bakas, University of Pennsylvania  
Björn Menze, Technische Universität München  
Mauricio Reyes, Universität Bern  
Handels Heinz, Universität zu Lübeck

PROGRAM COMMITTEE:
Christos Davatzikos, University of Pennsylvania  
Ender Konukoglu, ETH-Zürich  
Koen Van Leemput, Harvard Medical School  
Meritxell Bach Cuadra, University of Lausanne  
Stefan Winzeck, University of Cambridge  
Oskar Maier, Universität zu Lübeck

Selected papers will be published by Springer Verlag.