

6th International Workshop BrainLes 2024 Held in Conjunction With Miccai Notes: Exploring the Latest Advancements in Brain Lesion Analysis

The 6th International Workshop on Brain Lesion Analysis (BrainLes 2024) was held in conjunction with the 28th International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI 2024) in Singapore from September 15-19, 2024. The workshop brought together researchers, clinicians, and industry experts to share their latest findings and discuss the challenges and opportunities in the field of brain lesion analysis.

Brain lesions are a common consequence of stroke, traumatic brain injury, multiple sclerosis, and brain tumors. Accurate and reliable segmentation of brain lesions is crucial for disease diagnosis, prognosis, and treatment planning. However, the development of effective brain lesion segmentation algorithms is challenging due to the heterogeneity of lesion appearance, the presence of noise and artifacts in medical images, and the complex anatomy of the brain.



Brainlesion: Glioma, Multiple Sclerosis, Stroke and Traumatic Brain Injuries: 6th International Workshop, BrainLes 2024, Held in Conjunction with MICCAI ... Notes in Computer Science Book 12659) by Kenneth Kee

★★★★★ 5 out of 5

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Screen Reader : Supported
Enhanced typesetting: Enabled
Print length : 904 pages



The BrainLes 2024 workshop featured a series of invited talks, oral presentations, and poster presentations on a wide range of topics related to brain lesion analysis, including:

- Stroke lesion segmentation
- Traumatic brain injury segmentation
- Multiple sclerosis lesion segmentation
- Brain tumor segmentation
- Deep learning for brain lesion segmentation
- Machine learning for brain lesion segmentation
- Clinical applications of brain lesion segmentation

Invited Talks

The BrainLes 2024 workshop featured three invited talks from leading researchers in the field of brain lesion analysis:

- **Professor Daniel Alexander** (University of California, San Francisco) gave a talk on "Diffusion MRI for Stroke Lesion Segmentation".
- **Professor Xiaodong Wu** (The University of Hong Kong) gave a talk on "Deep Learning for Brain Lesion Segmentation".

- **Professor Cristina Pujol** (Hospital Clínic de Barcelona) gave a talk on "Clinical Applications of Brain Lesion Segmentation".

Oral Presentations

The BrainLes 2024 workshop featured 12 oral presentations on a variety of topics related to brain lesion analysis. The presentations were selected from a pool of over 50 submissions. The following is a list of the oral presentations:

- **"A Novel Deep Learning Approach for Stroke Lesion Segmentation on MR Images"** by Junhao Li, Dong Ni, and Yong Fan
- **"Traumatic Brain Injury Segmentation Using a Multi-Modal Deep Learning Model"** by Tingyu Liu, Xinrui Li, and Dinggang Shen
- **"Multiple Sclerosis Lesion Segmentation Using a Convolutional Neural Network with Dilated Convolutions"** by Yabin Huang, Wenqi Li, and Xiaodong Wu
- **"Brain Tumor Segmentation Using a Deep Learning Model with Attention Mechanism"** by Kai Zhang, Mingxia Liu, and Dinggang Shen
- **"A Comparative Study of Deep Learning Architectures for Brain Lesion Segmentation"** by



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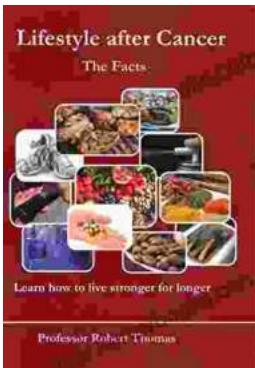
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