

1. Record Nr.	UNINA9910349460103321
Titolo	Brainlesion: Glioma, Multiple Sclerosis, Stroke and Traumatic Brain Injuries : Third International Workshop, BrainLes 2017, Held in Conjunction with MICCAI 2017, Quebec City, QC, Canada, September 14, 2017, Revised Selected Papers // edited by Alessandro Crimi, Spyridon Bakas, Hugo Kuijf, Bjoern Menze, Mauricio Reyes
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-75238-3
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XIII, 517 p. 233 illus.)
Collana	Image Processing, Computer Vision, Pattern Recognition, and Graphics ; ; 10670
Disciplina	616.8
Soggetti	Optical data processing Artificial intelligence Mathematical statistics Health informatics Image Processing and Computer Vision Artificial Intelligence Probability and Statistics in Computer Science Health Informatics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Talks -- Dice overlap measures for objects of unknown number: Application to lesion segmentation -- Lesion Detection, Segmentation and Prediction in Multiple Sclerosis Clinical Trials -- Brain Lesion Image Analysis -- Automated Segmentation of Multiple Sclerosis Lesions using Multi-Dimensional Gated Recurrent Units -- Joint Intensity Fusion Image Synthesis Applied to Multiple Sclerosis Lesion Segmentation -- MARCEL (inter-Modality Ane Registration with CorELation ratio): An Application for Brain Shift Correction in Ultrasound-Guided Brain Tumor Resection -- Generalised Wasserstein Dice Score for Imbalanced Multi-class Segmentation using Holistic Convolutional Networks -- Overall Survival Time Prediction for High Grade Gliomas based on

Sparse Representation Framework -- Traumatic Brain Lesion
Quantification based on Mean Divergence Changes -- Pairwise, Ordinal
Outlier Detection of Traumatic Brain Injuries -- Sub-Acute & Chronic
Ischemic Stroke Lesion MRI Segmentation -- Brain Tumor Segmentation
Using an Adversarial Network -- Brain Cancer Imaging Phenomics
Toolkit (brain-CaPTk): An Interactive Platform for Quantitative Analysis
of Glioblastoma -- Brain Tumor Image Segmentation -- Deep Learning
based Multimodal Brain Tumor Diagnosis -- Multimodal Brain Tumor
Segmentation using Ensemble of Forest Method -- Pooling-free fully
convolutional networks with dense skip connections for semantic
segmentation, with application to brain tumor segmentation --
Automatic Brain Tumor Segmentation using Cascaded Anisotropic
Convolutional Neural Networks -- 3D Brain Tumor Segmentation
through Integrating Multiple 2D FCNNs -- MRI Brain Tumor
Segmentation and Patient Survival Prediction using Random Forests and
Fully Convolutional Networks -- Automatic Segmentation and Overall
Survival Prediction in Gliomas using Fully Convolutional Neural Network
and Texture Analysis -- Multimodal Brain Tumor Segmentation Using
3D Convolutional Networks -- A Conditional Adversarial Network for
Semantic Segmentation of Brain Tumor -- Dilated Convolutions for
Brain Tumor Segmentation in MRI Scans -- Residual Encoder and
Convolutional Decoder Neural Network for Glioma Segmentation --
TPCNN: Two-phase Patch-based Convolutional Neural Network for
Automatic Brain Tumor Segmentation and Survival Prediction -- Brain
Tumor Segmentation and Radiomics Survival Prediction: Contribution to
the BRATS 2017 Challenge -- Multi-modal PixelNet for Brain Tumor
Segmentation -- Brain Tumor Segmentation using Dense Fully
Convolutional Neural Network -- Brain Tumor Segmentation in MRI
Scans using Deeply-Supervised Neural Networks -- Brain Tumor
Segmentation and Parsing on MRIs using Multiresolution Neural
Networks -- Brain Tumor Segmentation using Deep Fully Convolutional
Neural Networks -- Glioblastoma and Survival Prediction -- MRI
Augmentation via Elastic Registration for Brain Lesions Segmentation --
Cascaded V-Net using ROI masks for brain tumor segmentation --
Brain Tumor Segmentation using a 3D FCN with Multi-Scale Loss --
Brain tumor segmentation using a multi-path CNN based method -- 3D
Deep Neural Network-Based Brain Tumor Segmentation Using
Multimodality Magnetic Resonance Sequences -- Automated Brain
Tumor Segmentation on Magnetic Resonance Images (MRIs) and Patient
Overall Survival Prediction using Support Vector Machines -- Ensembles
of Multiple Models and Architectures for Robust Brain Tumour
Segmentation -- Tumor segmentation from multimodal MRI using
random forest with superpixel and tensor based feature extraction --
Towards Uncertainty-assisted Brain Tumor Segmentation and Survival
Prediction -- Ischemic Stroke Lesion Image Segmentation -- WMH
Segmentation Challenge: a Texture-based Classification Approach --
White Matter Hyperintensities Segmentation In a Few Seconds Using
Fully Convolutional Network and Transfer Learning.

Sommario/riassunto

This book constitutes revised selected papers from the Third International MICCAI Brainlesion Workshop, BrainLes 2017, as well as the International Multimodal Brain Tumor Segmentation, BraTS, and White Matter Hyperintensities, WMH, segmentation challenges, which were held jointly at the Medical Image computing for Computer Assisted Intervention Conference, MICCAI, in Quebec City, Canada, in September 2017. The 40 papers presented in this volume were carefully reviewed and selected from 46 submissions. They were organized in topical sections named: brain lesion image analysis; brain tumor image segmentation; and ischemic stroke lesion image

segmentation.
