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Collana	Image Processing, Computer Vision, Pattern Recognition, and Graphics ; ; 11037
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Soggetti	Optical data processing Health informatics Artificial intelligence Computer security Image Processing and Computer Vision Health Informatics Artificial Intelligence Systems and Data Security
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Medical Image Synthesis for Data Augmentation and Anonymization Using Generative Adversarial Networks -- Data Augmentation Using synthetic Lesions Improves Machine Learning Detection of Microbleeds from MRI -- Deep Harmonization of Inconsistent MR Data for Consistent Volume Segmentation -- Cross-modality Image Synthesis from Unpaired Data Using CycleGAN: Effects of Gradient Consistency Loss and Training Data Size -- A Machine Learning Approach to Diffusion MRI Partial Volume Estimation -- Unsupervised Learning for Cross-domain Medical Image Synthesis Using Deformation Invariant Cycle Consistency Networks -- Deep Boosted Regression for MR TO CT Synthesis -- Model-Based Generation of Synthetic 3D Time-Lapse Sequences of Multiple Mutually Interacting Motile Cells with Filopodia

-- MRI to FDG-PET: Cross-Modal Synthesis Using 3D U-Net for Multi-Modal Alzheimer's Classification -- Tubular Network Formation Process Using 3D Cellular Potts Model -- Deep Learning Based Coronary Artery Motion Artifact Compensation Using Style-Transfer Synthesis in CT Images -- Lung Nodule Synthesis Using CNN-based Latent Data Representation -- RS-Net: Regression-Segmentation 3D CNN for Synthesis of Full Resolution Missing Brain MRI in the Presence of Tumours -- Generating Magnetic Resonance Spectroscopy Imaging Data of Brain Tumours from Linear, Non-Linear and Deep Learning Models. .

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Sommario/riassunto

This book constitutes the refereed proceedings of the Third International Workshop on Simulation and Synthesis in Medical Imaging, SASHIMI 2018, held in conjunction with MICCAI 2018, in Granada, Spain, in September 2018. The 14 full papers presented were carefully reviewed and selected from numerous submissions. This workshop continues to provide a state-of-the-art and integrative perspective on simulation and synthesis in medical imaging for the purpose of invigorating research and stimulating new ideas on how to build theoretical links, practical synergies, and best practices between these two research directions.

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