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Collana	Image Processing, Computer Vision, Pattern Recognition, and Graphics ; ; 11827
Disciplina	616.0754
Soggetti	Optical data processing Artificial intelligence Health informatics Computer science—Mathematics Image Processing and Computer Vision Artificial Intelligence Health Informatics Mathematics of Computing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Empirical Bayesian Mixture Models for Medical Image Translation -- Improved MR to CT synthesis for PET/MR attenuation correction using Imitation Learning -- Unpaired Multi-Contrast MR Image Synthesis using Generative Adversarial Networks -- Unsupervised Retina Image Synthesis via Disentangled Representation Learning -- Pseudo-normal PET Synthesis with Generative Adversarial Networks for Localising Hypometabolism in Epilepsies -- Breast Mass Detection in Mammograms via Blending Adversarial Learning -- Tunable CT lung nodule synthesis conditioned on background image and semantic features -- Mask2Lesion: Mask-Constrained Adversarial Skin Lesion Image Synthesis -- Towards Annotation-Free Segmentation of Fluorescently Labeled Cell Membranes in Confocal Microscopy Images

-- Intelligent image synthesis to attack a segmentation CNN using adversarial learning -- Physics-informed brain MRI segmentation -- 3D Medical Image Synthesis by Factorised Representation and Deformable Model Learning -- Cycle-consistent training for Reducing Negative Jacobian Determinant in Deep Registration Networks -- iSMORE: an iterative self super-resolution algorithm -- An Optical Model of Whole Blood for Detecting Platelets in Lens-Free Images -- Evaluation of the realism of an MRI simulator for stroke lesion prediction using convolutional neural network.

Sommario/riassunto

This book constitutes the refereed proceedings of the 4th International Workshop on Simulation and Synthesis in Medical Imaging, SASHIMI 2019, held in conjunction with MICCAI 2019, in Shenzhen, China, in October 2019. The 16 full papers presented were carefully reviewed and selected from 21 submissions. The contributions span the following broad categories in alignment with the initial call-for-papers: methods based on generative models or adversarial learning for MRI/CT/PET/microscopy image synthesis, image super resolution, and several applications of image synthesis and simulation for data augmentation, segmentation or lesion detection.