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Titolo	Computational Pathology and Ophthalmic Medical Image Analysis [[electronic resource]] : First International Workshop, COMPAY 2018, and 5th International Workshop, OMIA 2018, Held in Conjunction with MICCAI 2018, Granada, Spain, September 16 - 20, 2018, Proceedings / / edited by Danail Stoyanov, Zeike Taylor, Francesco Ciompi, Yanwu Xu, Anne Martel, Lena Maier-Hein, Nasir Rajpoot, Jeroen van der Laak, Mitko Veta, Stephen McKenna, David Snead, Emanuele Trucco, Mona K. Garvin, Xin Jan Chen, Hrvoje Bogunovic
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ISBN	3-030-00949-1
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XVII, 347 p. 135 illus.)
Collana	Image Processing, Computer Vision, Pattern Recognition, and Graphics ; ; 11039
Disciplina	617.7
Soggetti	Optical data processing Artificial intelligence Arithmetic and logic units, Computer Mathematical statistics Pattern recognition Image Processing and Computer Vision Artificial Intelligence Arithmetic and Logic Structures Probability and Statistics in Computer Science Pattern Recognition
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Improving Accuracy of Nuclei Segmentation by Reducing Histological Image Variability -- Multi-Resolution Networks for Semantic Segmentation in Whole Slide Images -- Improving High Resolution Histology Image Classification with Deep Spatial Fusion Network -- Construction of a Generative Model of H&E Stained Pathology Images of Pancreas Tumors Conditioned by a Voxel Value of MRI Image --

Accurate 3D reconstruction of a whole pancreatic cancer tumor from pathology images with different stains -- Role of Task Complexity and Training in Crowdsourced Image Annotation -- Capturing global spatial context for accurate cell classification in skin cancer histology -- Exploiting Multiple Color Representations to Improve Colon Cancer Detection in Whole Slide H&E Stains -- Leveraging Unlabeled Whole-Slide-Images for Mitosis Detection -- Evaluating Out-of-the-box Methods for the Classification of Hematopoietic Cells in Images of Stained Bone Marrow -- DeepCerv: Deep neural network for segmentation free robust cervical cell classification -- Whole slide image registration for the study of tumor heterogeneity -- Modality Conversion from Pathological Image to Ultrasonic Image Using Convolutional Neural Network -- Structure instance segmentation in renal tissue: a case study on tubular immune cell detection -- Cellular Community Detection for Tissue Phenotyping in Histology Images -- Automatic Detection of Tumor Budding in Colorectal Carcinoma with Deep Learning -- Significance of Hyperparameter Optimization for Metastasis Detection in Breast Histology Images -- Image Magnification Regression Using DenseNet for Exploiting Histopathology Open Access Content -- Uncertainty Driven Pooling Network for Microvessel Segmentation in Routine Histology Images -- Ocular Structures Segmentation from Multi-sequences MRI using 3D Unet with Fully Connected CRFs -- Classification of Findings with Localized Lesions in Fundoscopic Images using a Regionally Guided CNN -- Segmentation of Corneal Nerves Using a U-Net-based Convolutional Neural Network -- Automatic Pigmentation Grading of the Trabecular Meshwork in Gonioscopic Images -- Large Receptive Field Fully Convolutional Network for Semantic Segmentation of Retinal Vasculature in Fundus Images -- Explaining Convolutional Neural Networks for Area Estimation of Choroidal Neovascularization via Genetic Programming -- Joint Segmentation and Uncertainty Visualization of Retinal Layers in Optical Coherence Tomography Images using Bayesian Deep Learning -- cGAN-based lacquer cracks segmentation in ICGA image -- Localizing Optic Disc and Cup for Glaucoma Screening via Deep Object Detection Networks -- Fundus Image Quality-guided Diabetic Retinopathy Grading -- DeepDisc: Optic Disc Segmentation based on Atrous Convolution and Spatial Pyramid Pooling -- Large-scale Left and Right Eye Classification in Retinal Images -- Automatic Segmentation of Cortex and Nucleus in Anterior Segment OCT Images -- Local Estimation of the Degree of Optic Disc Swelling from Color Fundus Photography -- Visual Field based Automatic Diagnosis of Glaucoma Using Deep Convolutional Neural Network -- Towards standardization of retinal vascular measurements: on the effect of image centering -- Feasibility study of Subfoveal Choroidal Thickness Changes in Spectral-Domain Optical Coherence Tomography Measurements of Macular Telangiectasia Type 2 -- Segmentation of retinal layers in OCT images of the mouse eye utilizing polarization contrast -- Glaucoma Diagnosis from Eye Fundus Images Based on Deep Morphometric Feature Estimation -- 2D Modeling and Correction of Fan-beam Scan Geometry in OCT -- A Bottom-up Saliency Estimation Approach for Neonatal Retinal Images.

Sommario/riassunto

This book constitutes the refereed joint proceedings of the First International Workshop on Computational Pathology, COMPAY 2018, and the 5th International Workshop on Ophthalmic Medical Image Analysis, OMIA 2018, held in conjunction with the 21st International Conference on Medical Imaging and Computer-Assisted Intervention, MICCAI 2018, in Granada, Spain, in September 2018. The 19 full papers (out of 25 submissions) presented at COMPAY 2018 and the 21 full

papers (out of 31 submissions) presented at OMIA 2018 were carefully reviewed and selected. The COMPAY papers focus on artificial intelligence and deep learning. The OMIA papers cover various topics in the field of ophthalmic image analysis.
