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Titolo	Domain Adaptation and Representation Transfer and Medical Image Learning with Less Labels and Imperfect Data [[electronic resource]] : First MICCAI Workshop, DART 2019, and First International Workshop, MIL3D 2019, Shenzhen, Held in Conjunction with MICCAI 2019, Shenzhen, China, October 13 and 17, 2019, Proceedings // edited by Qian Wang, Fausto Milletari, Hien V. Nguyen, Shadi Albarqouni, M. Jorge Cardoso, Nicola Rieke, Ziyue Xu, Konstantinos Kamnitsas, Vishal Patel, Badri Roysam, Steve Jiang, Kevin Zhou, Khoa Luu, Ngan Le
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Nota di contenuto	DART 2019 -- Noise as Domain Shift: Denoising Medical Images by Unpaired Image Translation -- Temporal Consistency Objectives Regularize the Learning of Disentangled Representations -- Multi-layer Domain Adaptation for Deep Convolutional Networks -- Intramodality Domain Adaptation using Self Ensembling and Adversarial Training -- Learning Interpretable Disentangled Representations using Adversarial VAEs -- Synthesising Images and Labels Between MR Sequence Types With CycleGAN -- Multi-Domain Adaptation in Brain MRI through Paired Consistency and Adversarial Learning -- Cross-modality Knowledge Transfer for Prostate Segmentation from CT Scans -- A Pulmonary Nodule Detection Method Based on Residual Learning and Dense

Connection -- Harmonization and Targeted Feature Dropout for Generalized Segmentation: Application to Multi-site Traumatic Brain Injury Images -- Improving Pathological Structure Segmentation Via Transfer Learning Across Diseases -- Generating Virtual Chromoendoscopic Images and Improving Detectability and Classification Performance of Endoscopic Lesions -- MIL3ID 2019 -- Self-supervised learning of inverse problem solvers in medical imaging -- Weakly Supervised Segmentation of Vertebral Bodies with Iterative Slice-propagation -- A Cascade Attention Network for Liver Lesion Classification in Weakly-labeled Multi-phase CT Images -- CT Data Curation for Liver Patients: Phase Recognition in Dynamic Contrast-Enhanced CT -- Active Learning Technique for Multimodal Brain Tumor Segmentation using Limited Labeled Images -- Semi-supervised Learning of Fetal Anatomy from Ultrasound -- Multi-modal segmentation with missing MR sequences using pre-trained fusion networks -- More unlabelled data or label more data? A study on semi-supervised laparoscopic image segmentation -- Few-shot Learning with Deep Triplet Networks for Brain Imaging Modality Recognition -- A Convolutional Neural Network Method for Boundary Optimization Enables Few-Shot Learning for Biomedical Image Segmentation -- Transfer Learning from Partial Annotations for Whole Brain Segmentation -- Learning to Segment Skin Lesions from Noisy Annotations -- A Weakly Supervised Method for Instance Segmentation of Biological Cells -- Towards Practical Unsupervised Anomaly Detection on Retinal Images -- Fine tuning U-Net for ultrasound image segmentation: which layers -- Multi-task Learning for Neonatal Brain Segmentation Using 3D Dense-Unet with Dense Attention Guided by Geodesic Distance.

Sommario/riassunto

This book constitutes the refereed proceedings of the First MICCAI Workshop on Domain Adaptation and Representation Transfer, DART 2019, and the First International Workshop on Medical Image Learning with Less Labels and Imperfect Data, MIL3ID 2019, held in conjunction with MICCAI 2019, in Shenzhen, China, in October 2019. DART 2019 accepted 12 papers for publication out of 18 submissions. The papers deal with methodological advancements and ideas that can improve the applicability of machine learning and deep learning approaches to clinical settings by making them robust and consistent across different domains. MIL3ID accepted 16 papers out of 43 submissions for publication, dealing with best practices in medical image learning with label scarcity and data imperfection. .
