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Collana	Image Processing, Computer Vision, Pattern Recognition, and Graphics ; ; 11798
Disciplina	618.207543
Soggetti	Artificial intelligence Optical data processing Application software Computer organization Artificial Intelligence Computer Imaging, Vision, Pattern Recognition and Graphics Computer Applications Computer Systems Organization and Communication Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	First Workshop on Smart UltraSound Imaging -- Straight to the point: reinforcement learning for user guidance in ultrasound -- Registration of Untracked 2D Laparoscopic Ultrasound Liver Images to CT using Content-based Retrieval and Kinematic Priors -- Direct Detection and Measurement of Nuchal Translucency with Neural Networks from Ultrasound Images -- Automated left ventricle dimension measurement in 2D cardiac ultrasound via an anatomically meaningful CNN approach -- SPRNet: Automatic Fetal Standard Plane Recognition Network for Ultrasound Images -- Representation Disentanglement for Multi-task

Learning with application to Fetal Ultrasound -- Adversarial Learning for Deformable Image Registration: Application to 3D Ultrasound Image Fusion -- Monitoring Achilles tendon healing progress in ultrasound imaging with convolutional neural networks -- Deep Learning-based Pneumothorax Detection in Ultrasound Videos -- Deep Learning Based Minimum Variance Beamforming for Ultrasound Imaging -- 4th Workshop on Perinatal, Preterm and Paediatric Image Analysis -- Estimation of preterm birth markers with U-Net segmentation network -- Investigating Image Registration Impact on Preterm Birth Classification: An Interpretable Deep Learning Approach -- Dual Network Generative Adversarial Networks for Pediatric Echocardiography Segmentation -- Reproducibility of Functional Connectivity Estimates in Motion Corrected Fetal fMRI -- Plug-and-Play Priors for Reconstruction-based Placental Image Registration -- A Longitudinal Study of the Evolution of the Central Sulcus' Shape in Preterm Infants using Manifold Learning -- Prediction of failure of induction of labor (IOL) from ultrasound images using radioman features -- Longitudinal analysis of fetal MRI in patients with prenatal spina bifida repair -- Quantifying Residual Motion Artifacts in Fetal fMRI Data -- Topology-preserving augmentation for CNN-based segmentation of congenital heart defects from 3D paediatric CMR.

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### Sommario/riassunto

This book constitutes the refereed joint proceedings of the First International Workshop on Smart Ultrasound Imaging, SUSI 2019, and the 4th International Workshop on Preterm, Perinatal and Paediatric Image Analysis, PIPPI 2019, held in conjunction with the 22nd International Conference on Medical Imaging and Computer-Assisted Intervention, MICCAI 2019, in Shenzhen, China, in October 2019. The 10 full papers presented at SUSI 2019 and the 10 full papers presented at PIPPI 2019 were carefully reviewed and selected. The SUSI papers cover a wide range of medical applications of B-Mode ultrasound, including cardiac (echocardiography), abdominal (liver), fetal, musculoskeletal, and lung. The PIPPI papers cover the detailed scientific study of volumetric growth, myelination and cortical microstructure, placental structure and function.

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