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	Soggetti	Artificial intelligence
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	Nota di contenuto	DeepCS: Deep Convolutional Neural Network and SVM based Single Image Super-Resolution -- Automatic Segmentation of Thigh Muscle in Longitudinal 3D T1-Weighted Magnetic Resonance (MR) Images -- Detecting Bone Lesions in Multiple Myeloma Patient Using Transfer Learning -- Quantification of Local Metabolic Tumor Volume Changes by Registering Blended PET-CT Images for Prediction of Pathologic Tumor Response -- Optimizing External Surface Sensor Locations for Respiratory Tumor Motion Prediction -- Segmentation of Fetal Adipose

Tissue Using Efficient CNNs for Portable Ultrasound -- Automatic Shadow Detection in 2D Ultrasound Images -- Multi-Channel Groupwise Registration to Construct and Ultrasound-Specific Fetal Brain Atlas -- Investigating Brain Age Deviation in Preterm Infants: A Deep Learning Approach -- Segmentation of Pelvic Vessels in Pediatric MRI Using a Patch-Based Deep Learning Approach -- Multi-View Image Reconstruction: Application to Fetal Ultrasound Compounding -- EchoFusion: Tracking and Reconstruction of Objects in 4D Freehand Ultrasound Imaging Without External Trackers -- Better Feature Matching for Placental Panorama Construction -- Combining Deep Learning and Multi-Atlas Label Fusion for Automated Placenta Segmentation from 3DUS -- LSTM Spatial Co-transformer Networks for Registration of 3D Fetal US and MR Brain Images -- Automatic and Efficient Standard Plane Recognition in Fetal Ultrasound Images via Multi-Scale Dense Networks -- Paediatric Liver Segmentation for Low-Contrast CT Images.

Sommario/riassunto	This book constitutes the refereed joint proceedings of the First International Workshop on Data Driven Treatment Response Assessment, DATRA 2018 and the Third International Workshop on Preterm, Perinatal and Paediatric Image Analysis, PIPPI 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 5 full papers presented at DATRA 2018 and the 12 full papers presented at PIPPI 2018 were carefully reviewed and selected. The DATRA papers cover a wide range of exploring pattern recognition technologies for tackling clinical issues related to the follow-up analysis of medical data with focus on malignancy progression analysis, computer-aided models of treatment response, and anomaly detection in recovery feedback. The PIPPI papers cover topics of advanced image analysis approaches focused on the analysis of growth and development in the fetal, infant and paediatric period.