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Collana	Image Processing, Computer Vision, Pattern Recognition, and Graphics ; ; 11397
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Soggetti	Optical data processing Health informatics Computer communication systems Artificial intelligence Computer hardware Image Processing and Computer Vision Health Informatics Computer Communication Networks Artificial Intelligence Computer Hardware
Lingua di pubblicazione	Inglese
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Nota di contenuto	Spinal Cord Gray Matter-White Matter Segmentation on Magnetic Resonance AMIRA Images with MD-GRU -- Predicting Scoliosis in DXA Scans Using Intermediate Representations -- Fast Registration of CT with Intra-operative Ultrasound Images for Spine Surgery -- Automated Grading of Modic Changes Using CNNs -- Improving the Performance with Mix-up -- Error Estimation for Appearance Model Segmentation of Musculoskeletal Structures Using Multiple, Independent Sub-models -- Automated Segmentation of Intervertebral Disc using Fully Dilated Separable Deep Neural Networks -- Intensity Standardization of

Skeleton in Follow-up Whole-Body MRI -- Towards a Deformable Multi-Surface Approach to Ligamentous Spine Models for Predictive Simulation-Based Scoliosis Surgery Planning -- Intervertebral Disc Segmentation Using Mathematical Morphology—A CNN-Free Approach.

Sommario/riassunto

This book constitutes the refereed proceedings of the 5th International Workshop and Challenge on Computational Methods and Clinical Applications for Spine Imaging, CSI 2018, held in conjunction with MICCAI 2018, in Granada, Spain, in September 2018. The 8 full papers presented together with 8 short papers and 1 keynote were carefully reviewed and selected for inclusion in this volume. Papers on novel methodology and clinical research, and also papers which demonstrate the performance of methods on the provided challenges, the aim is to cover both theoretical and very practical aspects of computerized spinal imaging. .