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Titolo	Computational Methods and Clinical Applications for Spine Imaging : 6th International Workshop and Challenge, CSI 2019, Shenzhen, China, October 17, 2019, Proceedings // edited by Yunliang Cai, Liansheng Wang, Michel Audette, Guoyan Zheng, Shuo Li
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Descrizione fisica	1 online resource (XII, 120 p. 63 illus., 50 illus. in color.)
Collana	Image Processing, Computer Vision, Pattern Recognition, and Graphics ; ; 11963
Disciplina	616.730754
Soggetti	Optical data processing Machine learning Computers Education—Data processing Application software Image Processing and Computer Vision Machine Learning Information Systems and Communication Service Computers and Education Computer Appl. in Social and Behavioral Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Regular Papers -- Detection of vertebral fractures in CT using 3D Convolutional Neural Networks -- Metastatic Vertebrae Segmentation for Use in a Clinical Pipeline -- Conditioned Variational Auto-Encoder for Detecting Osteoporotic Vertebral Fractures -- Vertebral Labelling in Radiographs: Learning a Coordinate Corrector to Enforce Spinal Shape -- Semi-supervised semantic segmentation of multiple lumbosacral structures on CT -- AASCE Challenge -- Accurate Automated Keypoint Detections for Spinal Curvature Estimation -- Seg4Reg Networks for Automated Spinal Curvature Estimation -- Automatic Spine Curvature Estimation by a Top-down Approach -- Automatic Cobb Angle

Detection using Vertebra Detector and Vertebra Corners Regression -- Automated Estimation of the Spinal Curvature via Spine Centerline Extraction with Ensembles of Cascaded Neural Networks -- Automated Spinal Curvature Assessment from X-Ray Images using Landmarks Estimation Network via Rotation Proposals -- A coarse-to-fine deep heatmap regression method for Adolescent Idiopathic Scoliosis Assessment -- Spinal Curve Guide Network(SCG-Net) for Accurate Automated Spinal Curvature Estimation -- A Multi-Task Learning Method for Direct Estimation of Spinal Curvature.

Sommario/riassunto

This book constitutes the proceedings of the 7th International Workshop and Challenge on Computational Methods and Clinical Applications for Spine Imaging, CSI 2019, which was held in conjunction with MICCAI on October 17, 2019, in Shenzhen, China. All submissions were accepted for publication; the book contains 5 peer-reviewed regular papers, covering topics of vertebra detection, spine segmentation and image-based diagnosis, and 9 challenge papers, investigating (semi-)automatic spinal curvature estimation algorithms and providing a standard evaluation framework with a set of x-ray images. .
