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   Titolo   Computational Methods and Clinical Applications for Spine Imaging :
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   Soggetti   Computer vision
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                       Computer simulation
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   Lingua di pubblicazione   Inglese

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   Nota di contenuto   State-of-the-art techniques -- Novel and emerging analysis and
                       visualization techniques -- Clinical challenges and open problems --
                       Major aspects of problems related to spine imaging -- Including
                       clinical applications of spine imaging -- Computer aided diagnosis of
                       spine conditions -- Computer aided detection of spine-related
                       diseases -- Emerging computational imaging techniques for spinal
                       diseases,.-Fast 3D reconstruction of spine, feature extraction,
                       multiscale analysis, pattern recognition, image enhancement of spine

imaging -- Image-guided spine intervention and treatment, multimodal image registration and fusion for spine imaging -- Novel visualization techniques, segmentation techniques for spine imaging, statistical and geometric modeling for spine and vertebra, spine and vertebra localization.

Sommario/riassunto	This book constitutes the refereed proceedings of the 4th International Workshop and Challenge on Computational Methods and Clinical Applications for Spine Imaging, CSI 2016, held in conjunction with MICCAI 2016, in Athens, Greece, in October 2016. The 13 workshop papers were carefully reviewed and selected for inclusion in this volume. They aim at reviewing the state-of-the-art techniques, sharing the novel and emerging analysis and visualization techniques and discussing the clinical challenges and open problems in this rapidly growing field - including all major aspects of problems related to spine imaging, including clinical applications of spine imaging, computer aided diagnosis of spine conditions, computer aided detection of spine-related diseases, emerging computational imaging techniques for spinal diseases, fast 3D reconstruction of spine, feature extraction, multiscale analysis, pattern recognition, image enhancement of spine imaging, image-guided spine intervention and treatment, multimodal image registration and fusion for spine imaging, novel visualization techniques, segmentation techniques for spine imaging, statistical and geometric modeling for spine and vertebra, spine and vertebra localization.