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Collana	Image Processing, Computer Vision, Pattern Recognition, and Graphics, , 3004-9954 ; ; 13006
Disciplina	621.367
Soggetti	Image processing - Digital techniques Computer vision Computer engineering Computer networks Computer science - Mathematics Mathematical statistics Computer Imaging, Vision, Pattern Recognition and Graphics Computer Engineering and Networks Probability and Statistics in Computer Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Acquisition -- On the b-value derivation for di usion-weighted Double-Echo Steady-State (dwDESS) Magnetic Resonance Imaging -- Quantitative evaluation of enhanced multi-plane clinical fetal diffusion MRI with a crossing- ber phantom -- Microstructure modelling -- A microstructure model from conventional diffusion MRI of meningiomas: impact of noise and error minimization -- Generalised Hierarchical Bayesian Microstructure Modelling for Diffusion MRI -- Brain Tissue Microstructure Characterization Using dMRI Based Autoencoder Neural-Networks -- Synthesizing VERDICT maps from standard DWI data using GANs -- Tractography and Connectivity -- A Novel Algorithm for

Region-to-Region Tractography in Diffusion Tensor Imaging -- Fast tractography streamline search -- Alignment of Tractography Streamlines using Deformation Transfer via Parallel Transport -- Applications and Visualisation -- Diffusion MRI Automated Region of Interest Analysis in Standard Atlas Space versus the Individual's Native Space -- Bundle Geodesic Convolutional Neural Network for DWI Segmentation from Single Scan Learning -- Lesion Normalization and Supervised Learning in Post-Traumatic Seizure Classiffication with Diffusion MRI -- Accelerating Geometry-Based Spherical Harmonics Glyphs Rendering for dMRI Using Modern OpenGL -- DiSCo Challenge - Invited contribution -- The Microstructural Features of the Diffusion-Simulated Connectivity (DiSCo) Dataset. .

Sommario/riassunto

This book constitutes the proceedings of the International Workshop on Computational Diffusion MRI, CDMRI 2021, which was held on October 1, 2021, in conjunction with MICCAI 2021. The conference was planned to take place in Strasbourg, France, but was held virtually due to the COVID-19 pandemic. The 13 full papers included were carefully reviewed and selected for inclusion in the book. The proceedings also contain a paper about the design and scope of the MICCAI Diffusion-Simulated Connectivity Challenge (DiSCo) which was held at CDMRI 2021. The papers were organized in topical sections as follows: acquisition; microstructure modelling; tractography and connectivity; applications and visualization; DiSCo challenge – invited contribution.