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Collana	Lecture Notes in Computer Science, , 1611-3349 ; ; 13722
Disciplina	616.07548
Soggetti	Image processing - Digital techniques Computer vision Artificial intelligence Education - Data processing Social sciences - Data processing Computer science - Mathematics Computer Imaging, Vision, Pattern Recognition and Graphics Artificial Intelligence Computers and Education Computer Application in Social and Behavioral Sciences Mathematics of Computing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Data preprocessing -- Slice estimation in diffusion MRI of neonatal and fetal brains in image and spherical harmonics domains using autoencoders -- Super-resolution of manifold-valued diffusion MRI refined by multi-modal imaging -- Lossy compression of multidimensional medical images using sinusoidal activation networks: an evaluation study -- Correction of susceptibility distortion in EPI: a semi-supervised approach with deep learning -- The impact of susceptibility distortion correction protocols on adolescent diffusion

MRI measures -- Signal representations -- Diffusion MRI Fibre Orientation Distribution Inpainting -- Fitting a Directional Microstructure Model to Diffusion-Relaxation MRI Data with Self-Supervised Machine Learning -- Stepwise Stochastic Dictionary Adaptation Improves Microstructure Reconstruction with Orientation Distribution Function Fingerprinting -- How can spherical CNNs benefit ML-based diffusion MRI parameter estimation? -- Tractography and WM pathways -- DC2U-Net: Tract Segmentation in Brain White Matter Using Dense Criss-Cross U-Net -- Clustering in Tractography using Autoencoders (CINTA) -- Tractometric Coherence of Fiber Bundles in DTI.

Sommario/riassunto

This book constitutes the proceedings of the International Workshop on Computational Diffusion MRI, CDMRI 2022, which was held 22 September 2022, in conjunction with MICCAI 2022. The 12 full papers included were carefully reviewed and selected for inclusion in the book. The papers were organized in topical sections as follows: Data processing, Signal representations, Tractography and WM pathways.