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Nota di contenuto	- Super-Resolution of Diffusion-Weighted Images via TDI-Conditioned Diffusion Model. -- Diffusion-Based Gray-White Matter Mapping for Quantitative Tractography in Glioma Patients. -- Ground-truth effects in learning-based fiber orientation distribution estimation in neonatal brains. -- Synthesizing 3D axon morphology: springs are all we need. -- Randomly COMMITting: Iterative Convex Optimization for Microstructure-Informed Tractography. -- AID-DTI: Accelerating High-fidelity Diffusion Tensor Imaging with Detail-preserving Model-based Deep Learning. -- Multi-dimensional Parameter Space

Exploration for Streamline-specific Tractography. -- Cross-domain Fiber Cluster Shape Analysis for Language Performance Cognitive Score Prediction. -- Can Transfer Learning Improve Supervised Segmentation of White Matter Bundles in Glioma Patients. -- Image Quality Transfer of Diffusion MRI Guided By High-Resolution Structural MRI. -- QID2: An Image-Conditioned Diffusion Model for Q-space Up-sampling of DWI Data. -- Ts-FWE: Token-Aware Single-shell Free Water Estimation for Brain Diffusion MRI. -- Assessing Early Motor System Degeneration in the Spinal Cord of ALS Patients Using Diffusion MRI: An Exploratory Study. -- RobNODDI: Robust NODDI Parameter Estimation with Adaptive Sampling under Continuous Representation. -- Introducing QuantConn: Overcoming challenging diffusion acquisitions with harmonization. -- Learning Low-Rank Tensor Approximation for GPU-based Tractography. -- Deep multivariate autoencoder for capturing complexity in Brain Structure and Behaviour Relationships. -- Heritability and Genetic Correlations Along the Corticospinal Tract. -- Corpus Callosum Parcellation Methods: What Can Tractography Tell Us About Them?.

Sommario/riassunto

This book constitutes the proceedings of the 15th International Workshop, CDMRI 2024, held in conjunction with MICCAI 2024, the 27th International Conference on Medical Image Computing and Computer-Assisted Intervention. The conference took place in Marrakesh, Morocco, October 6, 2024. The 19 full papers presented in this book were carefully reviewed and selected from 22 submissions.