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Nota di contenuto	Intro -- Preface -- Organization -- Contents -- Connectome of Autistic Brains, Global Versus Local Characterization -- 1 Introduction -- 1.1 Connectomes and Autism Spectrum Disorder -- 1.2 Global Metrics -- 1.3 Local Connectivity Differences -- 2 Methods -- 3 Data and Experimental Settings -- 3.1 Pre-processing and Connectome

Construction -- 3.2 Experimental Settings -- 4 Results and Discussions -- 5 Conclusion -- References -- Constructing Multi-frequency High-Order Functional Connectivity Network for Diagnosis of Mild Cognit ... -- Abstract -- 1 Introduction -- 2 Methods -- 2.1 Multi-frequency High-Order FC Networks -- 2.2 Feature Extraction and Classification -- 3 Experiments -- 3.1 Data -- 3.2 Performance Evaluation -- 3.3 Intra-spectrum and Inter-spectrum HONs -- 4 Conclusion -- Acknowledgements -- References -- Consciousness Level and Recovery Outcome Prediction Using High-Order Brain Functional Connectivity N ... -- Abstract -- 1 Introduction -- 2 Materials -- 3 High-Order BFCN Construction -- 4 Experiments -- 5 Conclusion -- Acknowledgements -- References -- Discriminative Log-Euclidean Kernels for Learning on Brain Networks -- 1 Introduction -- 2 Methods and Materials -- 2.1 Subjects -- 2.2 Image Data -- 2.3 Image Processing -- 2.4 Brain Network Construction -- 2.5 Gaussian Process Classification -- 2.6 The Discriminative Log-Euclidean Kernel -- 2.7 Implementation Details -- 2.8 Classification Experiments -- 2.9 Group Difference Experiments -- 3 Results and Discussion -- 4 Conclusions -- References -- Interactive Computation and Visualization of Structural Connectomes in Real-Time -- 1 Introduction -- 2 Methods -- 2.1 Structural Connectivity -- 3 Visualization -- 4 Results -- 5 Discussion -- 6 Conclusion -- References.

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Sommario/riassunto

This book constitutes the refereed proceedings of the First International Workshop on Connectomics in NeuroImaging, CNI 2017, held in conjunction with MICCAI 2017 in Quebec City, Canada, in September 2017. The 19 full papers presented were carefully reviewed and selected from 26 submissions. The papers deal with new advancements in network construction, analysis, and visualization techniques in connectomics and their use in clinical diagnosis and group comparison studies as well as in various neuroimaging applications.
