1. Record Nr. UNINA9910595055103321

Titolo	Medical Image Computing and Computer Assisted Intervention – MICCAI 2022 : 25th International Conference, Singapore, September 18–22, 2022, Proceedings, Part I / / edited by Linwei Wang, Qi Dou, P. Thomas Fletcher, Stefanie Speidel, Shuo Li
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2022
ISBN	9783031164316 3031164318
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (796 pages)
Collana	Lecture Notes in Computer Science, , 1611-3349 ; ; 13431
Disciplina	381 616.07540285
Soggetti	Image processing - Digital techniques Computer vision Application software Machine learning Education - Data processing Social sciences - Data processing Biomedical engineering Computer Imaging, Vision, Pattern Recognition and Graphics Computer and Information Systems Applications Machine Learning Computers and Education Computer Application in Social and Behavioral Sciences Biomedical Engineering and Bioengineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Brain Development and Atlases -- Progression models for imaging data with Longitudinal Variational Auto Encoders -- Boundary-Enhanced Self-Supervised Learning for Brain Structure Segmentation -- Domain-Prior-Induced Structural MRI Adaptation for Clinical Progression Prediction of Subjective Cognitive Decline -- 3D Global Fourier Network for Alzheimer’s Disease Diagnosis using Structural MRI -- CASHformer:

Cognition Aware SHape Transformer for Longitudinal Analysis -- Interpretable differential diagnosis for Alzheimer's disease and Frontotemporal dementia -- Is a PET all you need? A multi-modal study for Alzheimer's disease using 3D CNNs -- Unsupervised Representation Learning of Cingulate Cortical Folding Patterns -- Feature robustness and sex differences in medical imaging: a case study in MRI-based Alzheimer's disease detection -- Extended Electrophysiological Source Imaging with Spatial Graph Filters -- DWI and Tractography -- Hybrid Graph Transformer for Tissue Microstructure Estimation with Undersampled Diffusion MRI Data -- Atlas-powered deep learning (ADL) - application to diffusion weighted MRI -- One-Shot Segmentation of Novel White Matter Tracts via Extensive Data Augmentation -- Accurate Corresponding Fiber Tract Segmentation via FiberGeoMap Learner -- An adaptive network with extragradient for diffusion MRI-based microstructure estimation -- Shape-based features of white matter fiber-tracts associated with outcome in Major Depression Disorder -- White Matter Tracts are Point Clouds: Neuropsychological Score Prediction and Critical Region Localization via Geometric Deep Learning -- Segmentation of Whole-brain Tractography: A Deep Learning Algorithm Based on 3D Raw Curve Points -- TractoFormer: A Novel Fiber-level Whole Brain Tractography Analysis Framework Using Spectral Embedding and Vision Transformers -- Multi-site Normative Modeling of Diffusion Tensor Imaging Metrics Using Hierarchical Bayesian Regression -- Functional Brain Networks -- Contrastive Functional Connectivity Graph Learning for Population-based fMRI Classification -- Joint Graph Convolution for Analyzing Brain Structural and Functional Connectome -- Decoding Task Sub-type States with Group Deep Bidirectional Recurrent Neural Network -- Hierarchical Brain Networks Decomposition via Prior Knowledge Guided Deep Belief Network -- Interpretable signature of consciousness in resting-state functional network brain activity -- Nonlinear Conditional Time-varying Granger Causality of Task fMRI via Deep Stacking Networks and Adaptive Convolutional Kernels -- fMRI Neurofeedback Learning Patterns are Predictive of Personal and Clinical Traits -- Multi-head Attention-based Masked Sequence Model for Mapping Functional Brain Networks -- Dual-HINet: Dual Hierarchical Integration Network of Multigraphs for Connectional Brain Template Learning -- RefineNet: An Automated Framework to Generate Task and Subject-Specific Brain Parcellations for Resting-State fMRI Analysis -- Modelling Cycles in Brain Networks with the Hodge Laplacian -- Predicting Spatio-Temporal Human Brain Response Using fMRI -- Revealing Continuous Brain Dynamical Organization with Multimodal Graph Transformer -- Explainable Contrastive Multiview Graph Representation of Brain, Mind, and Behavior -- Embedding Human Brain Function via Transformer -- How Much to Aggregate: Learning Adaptive Node-wise Scales on Graphs for Brain Networks -- Combining multiple atlases to estimate data-driven mappings between functional connectomes using optimal transport -- The Semi-constrained Network-Based Statistic (scNBS): integrating local and global information for brain network inference -- Unified Embeddings of Structural and Functional Connectome via a Function-Constrained Structural Graph Variational Auto-Encoder -- Neuroimaging -- Characterization of brain activity patterns across states of consciousness based on variational auto-encoders -- Conditional VAEs for confound removal and normative modelling of neurodegenerative diseases -- Semi-supervised learning with data harmonisation for biomarker discovery from resting state fMRI -- Cerebral Microbleeds Detection Using a 3D Feature Fused Region Proposal Network with Hard Sample Prototype Learning -- Brain-Aware

Replacements for Supervised Contrastive Learning in Detection of Alzheimer's Disease -- Heart and Lung Imaging -- AANet: Artery-Aware Network for Pulmonary Embolism Detection in CTPA Images -- Siamese Encoder-based Spatial-Temporal Mixer for Growth Trend Prediction of Lung Nodules on CT Scans -- What Makes for Automatic Reconstruction of Pulmonary Segments -- CFDA: Collaborative Feature Disentanglement and Augmentation for Pulmonary Airway Tree Modeling of COVID-19 CTs -- Decoupling Predictions in Distributed Learning for Multi-Center Left Atrial MRI Segmentation -- Scribble-Supervised Medical Image Segmentation via Dual-Branch Network and Dynamically Mixed Pseudo Labels Supervision -- Diffusion Deformable Model for 4D Temporal Medical Image Generation -- SAPJNet: Sequence-Adaptive Prototype-Joint Network for Small Sample Multi-Sequence MRI Diagnosis -- Evolutionary Multi-objective Architecture Search Framework: Application to COVID-19 3D CT Classification -- Detecting Aortic Valve Pathology from the 3-Chamber Cine Cardiac MRI View -- CheXRelNet: An Anatomy-Aware Model for Tracking Longitudinal Relationships between Chest X-Rays -- Reinforcement learning for active modality selection during diagnosis -- Ensembled Prediction of Rheumatic Heart Disease from Ungated Doppler Echocardiography Acquired in Low-Resource Settings -- Attention mechanisms for physiological signal deep learning: which attention should we take? -- Computer-aided Tuberculosis Diagnosis with Attribute Reasoning Assistance -- Multimodal Contrastive Learning for Prospective Personalized Estimation of CT Organ Dose -- RTN: Reinforced Transformer Network for Coronary CT Angiography Vessel-level Image Quality Assessment -- A Comprehensive Study of Modern Architectures and Regularization Approaches on CheXpert5000.- LSSANet: A Long Short Slice-Aware Network for Pulmonary Nodule Detection -- Consistency-based Semi-supervised Evidential Active Learning for Diagnostic Radiograph Classification -- Self-Rating Curriculum Learning for Localization and Segmentation of Tuberculosis on Chest Radiograph -- Rib Suppression in Digital Chest Tomosynthesis -- Multi-Task Lung Nodule Detection in Chest Radiographs with a Dual Head Network -- Dermatology -- Data-Driven Deep Supervision for Skin Lesion Classification -- Out-of-Distribution Detection for Long-tailed and Fine-grained Skin Lesion Images -- FairPrune: Achieving Fairness Through Pruning for Dermatological Disease Diagnosis -- Reliability-aware Contrastive Self-ensembling for Semi-supervised Medical Image Classification.

Sommario/riassunto

The eight-volume set LNCS 13431, 13432, 13433, 13434, 13435, 13436, 13437, and 13438 constitutes the refereed proceedings of the 25th International Conference on Medical Image Computing and Computer-Assisted Intervention, MICCAI 2022, which was held in Singapore in September 2022. The 574 revised full papers presented were carefully reviewed and selected from 1831 submissions in a double-blind review process. The papers are organized in the following topical sections: Part I: Brain development and atlases; DWI and tractography; functional brain networks; neuroimaging; heart and lung imaging; dermatology; Part II: Computational (integrative) pathology; computational anatomy and physiology; ophthalmology; fetal imaging; Part III: Breast imaging; colonoscopy; computer aided diagnosis; Part IV: Microscopic image analysis; positron emission tomography; ultrasound imaging; video data analysis; image segmentation I; Part V: Image segmentation II; integration of imaging with non-imaging biomarkers; Part VI: Image registration; image reconstruction; Part VII: Image-Guided interventions and surgery; outcome and disease prediction; surgical data science; surgical planning and simulation; machine

learning – domain adaptation and generalization; Part VIII: Machine learning – weakly-supervised learning; machine learning – model interpretation; machine learning – uncertainty; machine learning theory and methodologies. .