1. Record Nr. UNISA996696881103316

Autore	Chen Tong
Titolo	Efficient Medical Artificial Intelligence : First International Workshop, EMA4MICCAI 2025, Held in Conjunction with MICCAI 2025, Daejeon, South Korea, September 23, 2025, Proceedings / / edited by Tong Chen, Jinge Wu, Kun Yuan, Xiaohan Xing, Yuning Du, Jinman Kim, Nicolas Padoy, Hongliang Ren, Nassir Navab, Long Bai
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2026
ISBN	3-032-13961-9
Edizione	[1st ed. 2026.]
Descrizione fisica	1 online resource (648 pages)
Collana	Lecture Notes in Computer Science, , 1611-3349 ; ; 16318
Altri autori (Persone)	Zhen
Disciplina	006.3
Soggetti	Artificial intelligence Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	-- Beyond one-hot encoding? Journey into compact encoding for large multi-class segmentation. -- BrainNetMLP: An Efficient and Effective Baseline for Functional Brain Network Classification. -- Conquering the Retina: Bringing Visual in-Context Learning to OCT. -- Electrocardiogram Feature Extraction: A Quantitative Comparison of Signal Reconstruction Using Traditional and Autoencoder Methods. -- Improving Few-Shot-Segmentation of New Structures in Volumetric Medical Images by Support Set Optimization. -- Towards Radar-Driven Speech Therapy: Multimodal Training withUltrasound, Audio, and Radar for Unimodal Phonetic Segment Classification. -- EU-Net: Efficient Training of U-Net for Biomedical Image Segmentation. -- Multi-Scale Spatial Context with Learnable High-Frequency Augmentation for Polyp Segmentation. -- EL-UNet: An Efficient and Lightweight U-Net with Multi-Scale Attention for Medical Image Segmentation. -- SwiM-UNet: A Lightweight Hybrid Swin Transformer-Vision Mamba U-Net with a Novel Adapter Design. -- Federated and Continual Learning of AI models from Routine Clinical Data Under Privacy Constraints. -- From O(n2) to O(n) Parameters: Quantum Self-Attention in Vision Transformers for Biomedical Image Classification. -- Human-in-the-Loop Active Learning for Real-Time Endoscopic Diagnostics on Edge

Devices. -- Triple Expert Adaptation Networks with Adaptive Prompt Selection for Multi-Modal Medical Image Fusion. -- Towards Efficient and Privacy-Preserving Medical Image Segmentation:A Point-Driven Source-Free Active Adaptation Framework. -- CSTNet: A Generative Framework for EEG-to-ECoG Mapping via Optimal Transport . -- Spiking MU-Net: Toward Low-Power and Efficient Microscopic Image Segmentation. -- SAM 2 in Robotic Surgery: An Empirical Evaluation for Robustness and Generalization in Surgical Video Segmentation. -- EcoScale-Net: A Lightweight Multi-Kernel Network for Long-Sequence 12-lead ECG Classification. -- Impact of Clinical Image Quality on Efficient Foundation Model Finetuning. -- Continual Multiple Instance Learning for Hematologic Disease Diagnosis. -- MIP-Based Tumor Segmentation: A Radiologist-Inspired Approach. -- Interpretability-Aware Pruning for Efficient Medical Image Analysis. -- PeekNet: A Power and Efficiency-Enhanced Knowledge-Aware Network for Real-Time Capsule Endoscopy Image Classification. -- Efficient Foundation Model Pre-training on Mixed Retina Images from Similar Modalities. -- niiv: Interactive Self-supervised Neural Implicit Isotropic Volume Reconstruction. -- RARE-UNet: Resolution-Aligned Routing Entry for Adaptive Medical Image Segmentation. -- Graph-based LLM over Semi-Structured Population Data for Dynamic Policy Response. -- Neural Cellular Automata for Weakly Supervised Segmentation of White Blood Cells. -- EndoSfM3D: Learning to 3D Reconstruct Any Endoscopic Surgery Scene using Self-supervised Foundation Model . -- WeakSupCon: Weakly Supervised Contrastive Learning for Encoder Pre-training. -- DetSAM: A Joint Detection-and-Segmentation Learning Framework for Multi-Class Surgical Instrument Segmentation. -- Debunking Optimization Myths in Federated Learning for Medical Image Classification. -- A Staining Variability-Aware Semi-Supervised Framework for H&E-to-IHC Virtual Staining. -- Counterfactual Augmentation for Long-Tailed Multi-Label Chest X-ray Classification. -- Domain-Incremental Continual Learning for Robust Surgical Tool Segmentation.

Sommario/riassunto

This book constitutes the proceedings of the First International Workshop on Efficient Medical Artificial Intelligence, EMA4MICCAI 2025, held in conjunction with MICCAI 2025, in Daejeon, South Korea, on September 23, 2025. The 36 full papers included in this book were carefully reviewed and selected from 40 submissions. The EMA4MICCAI Workshop focuses on advancing computational effciency in medical AI by exploring innovative techniques such as lightweight model architectures, resource-conscious deployment strategies, and energy-effcient computing. .