

1. Record Nr.	UNINA9911011818803321
Autore	Wang Qingyun
Titolo	AI for Research and Scalable, Efficient Systems : Second International Workshop, AI4Research 2025, and First International Workshop, SEAS 2025, Held in Conjunction with AAAI 2025, Philadelphia, PA, USA, February 25–March 4, 2025, Proceedings / / edited by Qingyun Wang, Wenpeng Yin, Abhishek Aich, Yumin Suh, Kuan-Chuan Peng
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	9789819689125
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (412 pages)
Collana	Communications in Computer and Information Science, , 1865-0937 ; ; 2533
Altri autori (Persone)	YinWenpeng AichAbhishek SuhYumin PengKuan-Chuan
Disciplina	006.31
Soggetti	Machine learning Natural language processing (Computer science) Expert systems (Computer science) Data mining Artificial intelligence - Data processing Artificial intelligence Machine Learning Natural Language Processing (NLP) Knowledge Based Systems Data Mining and Knowledge Discovery Data Science Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	-- AI4Research 2025. -- ResearchCodeAgent: An LLM Multi-Agent System for Automated Codification of Research Methodologies. -- LLMs Tackle Meta-Analysis: Automating Scientific Hypothesis Generation with Statistical Rigor. -- AuditBench: A Benchmark for

Large Language Models in Financial Statement Auditing. -- Clustering Time Series Data with Gaussian Mixture Embeddings in a Graph Autoencoder Framework. -- Empowering AI as Autonomous Researchers: Evaluating LLMs in Generating Novel Research Ideas through Automated Metrics. -- Multi-LLM Collaborative Caption Generation in Scientific Documents. -- CypEGAT: A Deep Learning Framework Integrating Protein Language Model and Graph Attention Networks for Enhanced CYP450s Substrate Prediction. -- Understanding How Paper Writers Use AI-Generated Captions in Figure Caption Writing. -- SEAS 2025. -- ssProp: Energy-Efficient Training for Convolutional Neural Networks with Scheduled Sparse Back Propagation. -- Knowledge Distillation with Training Wheels. -- PickLLM: Context-Aware RL-Assisted Large Language Model Routing. -- ZNorm: Z-Score Gradient Normalization Accelerating Skip-Connected Network Training without Architectural Modification. -- The Impact of Multilingual Model Scaling on Seen and Unseen Language Performance. -- Information Consistent Pruning: How to Efficiently Search for Sparse Networks?. -- Efficient Image Similarity Search with QuadTrees.

---

### Sommario/riassunto

This book constitutes the proceedings of the Second International Workshop, AI4Research 2025, and First International Workshop, SEAS 2025, which were held in conjunction with AAAI 2025, Philadelphia, PA, USA, during February 25–March 4, 2025. AI4Research 2025 presented 8 full papers from 35 submissions. The papers covered diverse areas such as agent debate evaluation, taxonomy expansion, hypothesis generation, AI4Research benchmarks, caption generation, drug discovery, and financial auditing. SEAS 2025 accepted 7 full papers from 17 submissions. These papers explore the efficiency and scalability of AI models.

---