

Date	Name	Domain	Focus	Keyword	Task Types	Metrics	Models	Citation
2020-09-07	MMLU (Mas- sive Multitask Language Under- standing)	Multidomain	Academic knowledge and reason- ing across 57 subjects	[multitask, multiple-choice, zero-shot, few- shot, knowledge probing]	[Multiple choice]	[Accuracy]	[GPT-4o, Gemini 1.5 Pro, o1, DeepSeek- R1]	[1] ⇒
2023-11-20	GPQA Diamond	Science	Graduate- level scientific reasoning	[Google-proof, graduate-level, science QA, chem- istry, physics]	[Multiple choice, Multi-step QA]	[Accuracy]	[o1, DeepSeek- R1]	[2] ⇒
2018-03-14	ARC-Challenge (Advanced Reason- ing Challenge)	Science	Grade-school science with reasoning emphasis	[grade-school, sci- ence QA, challenge set, reasoning]	[Multiple choice]	[Accuracy]	[GPT-4, Claude]	[3] ⇒
2025-01-24	Humanity’s Last Exam	Multidomain	Broad cross- domain aca- demic reason- ing	[cross-domain, academic exam, multiple-choice, multidisciplinary]	[Multiple choice]	[Accuracy]	[]	[4] ⇒
2024-11-07	FrontierMath	Mathematics	Challenging advanced mathematical reasoning	[symbolic reason- ing, number theory, algebraic geometry, category theory]	[Problem solving]	[Accuracy]	[]	[5] ⇒
2024-07-18	SciCode	Scientific Pro- gramming	Scientific code generation and problem solving	[code synthesis, scientific comput- ing, programming benchmark]	[Coding]	[Solve rate ( percent)]	[Claude3.5- Sonnet]	[6] ⇒
2025-03-13	AIME (Ameri- can Invitational Mathematics Examination)	Mathematics	Pre-college advanced prob- lem solving	[algebra, combina- torics, number the- ory, geometry]	[Problem solving]	[Accuracy]	[]	[7] ⇒
2025-02-15	MATH-500	Mathematics	Math reason- ing generaliza- tion	[calculus, algebra, number theory, ge- ometry]	[Problem solving]	[Accuracy]	[]	[8] ⇒
2024-04-02	CURIE (Scientific Long-Context Un- derstanding, Reason- ing and Infor- mation Extraction)	Multidomain Science	Long-context scientific rea- soning	[long-context, in- formation extrac- tion, multimodal]	[Information extrac- tion, Reasoning, Concept tracking, Aggregation, Algebraic manipulation, Multi- modal comprehension]	[Accuracy]	[]	[9] ⇒
2023-01-26	FEABench (Finite Element Analysis Benchmark)	Computational Engineering	FEA simula- tion accuracy and perfor- mance	[finite element, simulation, PDE]	[Simulation, Perfor- mance evaluation]	[Solve time, Er- ror norm]	[FEniCS, deal.II]	[10] ⇒

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2024-07-12	SPIQA (Scientific Paper Image Question Answering)	Computer Science	Multimodal QA on scientific figures	[multimodal QA, figure understanding, table comprehension, chain-of-thought]	[Question answering, Multimodal QA, Chain-of-Thought evaluation]	[Accuracy, F1 score]	[Chain-of-Thought models, Multimodal QA systems]	[11] ⇒
2020-09-28	MedQA	Medical Question Answering	Medical board exam QA	[USMLE, diagnostic QA, medical knowledge, multilingual]	[Multiple choice]	[Accuracy]	[Neural reader, Retrieval-based QA systems]	[12] ⇒
2025-05-13	BaisBench (Biological AI Scientist Benchmark)	Computational Biology	Omics-driven AI research tasks	[single-cell annotation, biological QA, autonomous discovery]	[Cell type annotation, Multiple choice]	[Annotation accuracy, QA accuracy]	[LLM-based AI scientist agents]	[13] ⇒
2023-01-26	MOLGEN	Computational Chemistry	Molecular generation and optimization	[SELFIES, GAN, property optimization]	[Distribution learning, Goal-oriented generation]	[Validity percent, Novelty percent, QED, Docking score]	[MolGen]	[14] ⇒
2020-05-02	Open Graph Benchmark (OGB) - Biology	Graph ML	Biological graph property prediction	[node prediction, link prediction, graph classification]	[Node property prediction, Link property prediction, Graph property prediction]	[Accuracy, ROC-AUC]	[GCN, GraphSAGE, GAT]	[15] ⇒
2011-10-01	Materials Project	Materials Science	DFT-based property prediction	[DFT, materials genome, high-throughput]	[Property prediction]	[MAE, R <sup>2</sup> ]	[Automatminer, Crystal Graph Neural Networks]	[16] ⇒
2020-10-20	OCP (Open Catalyst Project)	Chemistry; Materials Science	Catalyst adsorption energy prediction	[DFT relaxations, adsorption energy, graph neural networks]	[Energy prediction, Force prediction]	[MAE (energy), MAE (force)]	[CGCNN, SchNet, DimeNet++, GemNet-OC]	[17]–[20] ⇒
2023-06-20	JARVIS-Leaderboard	Materials Science; Benchmarking	Comparative evaluation of materials design methods	[leaderboards, materials methods, simulation]	[Method benchmarking, Leaderboard ranking]	[MAE, RMSE, Accuracy]	[]	[21] ⇒
2022-02-22	Quantum Computing Benchmarks (QML)	Quantum Computing	Quantum algorithm performance evaluation	[quantum circuits, state preparation, error correction]	[Circuit benchmarking, State classification]	[Fidelity, Success probability]	[IBM Q, IonQ, AQT@LBNL]	[22] ⇒
2024-10-01	CFDBench (Fluid Dynamics)	Fluid Dynamics; Scientific ML	Neural operator surrogate modeling	[neural operators, CFD, FNO, DeepONet]	[Surrogate modeling]	[L2 error, MAE]	[FNO, DeepONet, U-Net]	[23] ⇒
None	SatImgNet	Remote Sensing	Satellite imagery classification	[land-use, zero-shot, multi-task]	[Image classification]	[Accuracy]	[]	[24] ⇒
2023-07-19	ClimateLearn	Climate Science; Forecasting	ML for weather and climate modeling	[medium-range forecasting, ERA5, data-driven]	[Forecasting]	[RMSE, Anomaly correlation]	[CNN baselines, ResNet variants]	[25] ⇒

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2022-06-09	BIG-Bench (Beyond the Imitation Game Benchmark)	NLP; AI Evaluation	Diverse reasoning and generalization tasks	[few-shot, multi-task, bias analysis]	[Few-shot evaluation, Multi-task evaluation]	[Accuracy, Task-specific metrics]	[GPT-3, Dense Transformers, Sparse Transformers]	[26] ⇒
2019-11-20	CommonSenseQA	NLP; Commonsense	Commonsense question answering	[ConceptNet, multiple-choice, adversarial]	[Multiple choice]	[Accuracy]	[BERT-large, RoBERTa, GPT-3]	[27] ⇒
2019-07-24	Winogrande	NLP; Commonsense	Winograd Schema-style pronoun resolution	[adversarial, pronoun resolution]	[Pronoun resolution]	[Accuracy, AUC]	[RoBERTa, BERT, GPT-2]	[28] ⇒

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