

Dynamic Sparsity

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Dynamically adjusting pruning patterns during training to explore optimal sparse structures

Static vs Dynamic Sparsity

Static Sparsity

- Prune once → Fixed
- Simple but suboptimal
- Performance limitations

Dynamic Sparsity

- Continuous reconstruction during training
- Complex but optimized
- Better performance

Dynamic Pruning Methods

RigL

Random Sparse Training
Periodic weight grow/prune

SET

Sparse Evolutionary Training
Evolutionary algorithm based

DST

Dynamic Sparse Training
Gradient-based reconstruction

Advantages: Maintain sparsity from early training → Reduced training cost
Final sparse structure is more efficient