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Improving performance of sparse matrix dense matrix multiplication on large-scale parallel systems

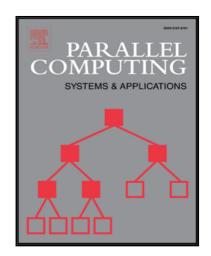
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Highlights

- A generic model to scale sparse matrix dense matrix multiplication (SpMM).
- SpMM suffers from high communication volume overhead.
- Different volume-based metrics such as maximum volume besides total volume.
- Simultaneous minimization of volume-based communication cost metrics.
- Portable models based on graph and hypergraph partitioning.

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