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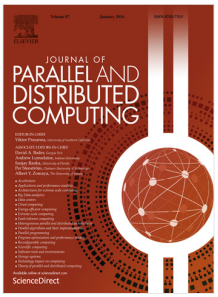

Optimizing nonzero-based sparse matrix partitioning models via reducing latency

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***Highlights (for review)**

- Optimizing fine-grain hypergraph model to reduce bandwidth and latency
- Optimizing medium-grain hypergraph model to reduce bandwidth and latency
- Message net concept to encapsulate minimization of total message count
- Practical enhancements to establish a trade-off between bandwidth and latency
- Significant performance improvements validated on nearly one thousand matrices