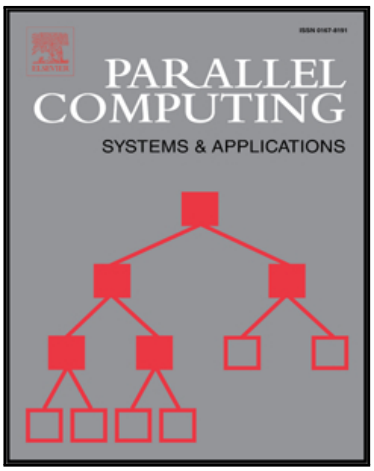

A Parallel Min-Cut Algorithm using Iteratively Reweighted Least Squares Targeting at Problems with Floating-Point Edge Weights

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Highlights

- We formulate and derive a Parallel Iteratively Reweighted least squares Min-Cut solver (PIRMCut).
- We propose a novel two-level rounding procedure and prove a generalized Cheeger-type inequality.
- We developed an MPI based parallel implementation of PIRMCut.
- We demonstrate the parallel scalability of our PIRMCut implementation.
- We demonstrate PIRMCut significant speed improvement over a serial code.