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Decompositions and packings of digraphs with orientations of a 4-cycle. (English summary)

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Summary: “We present necessary and sufficient conditions for the decomposition of the complete symmetric bipartite digraph into each of the orientations of a 4-cycle (in the cases for which such decompositions are not already known). We use these results to find optimal packings of the complete symmetric digraph with each of the orientations of a 4-cycle. Finally we give necessary and sufficient conditions for the existence of a decomposition of the complete symmetric digraph on v vertices with a hole of size w into each of the orientations of a 4-cycle.”

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Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.