List of Motifs and their identifiers used in the `buildMAM` software

Luce le Gorrec

This document provides an exhaustive list of identifiers of the motifs (graphlets) tupon which the Motif Adjacency Matrix (MAM) of a graph can be used in the `buildMAM` software.

Edges

E1 With this identifier as the motif, `buildMAM` returns a MAM equal to the initial graph.

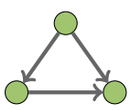
E2 With this identifier as the motif, `buildMAM` returns a MAM which is a symmetrisation of the initial graph. That is, given the initial directed graph whose adjacency matrix is $\mathbf{A} \in \{\mathbf{0},\mathbf{1}\}^{\mathbf{n}\times\mathbf{n}}$, the output MAM is the undirected graph, whose adjacency matrix is

$$\mathbf{A_S} = \mathbf{A} + \mathbf{A}^{\mathbf{T}} \in \{\mathbf{0},\mathbf{1},\mathbf{2}\}^{\mathbf{n}\times\mathbf{n}}.$$

None of these motifs E1 and E2 provide a MAM in the formal sense.

Three-Node Motifs

Triangles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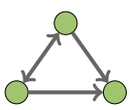
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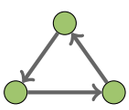
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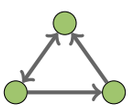
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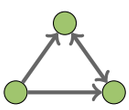
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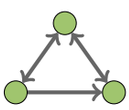
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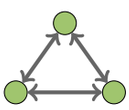
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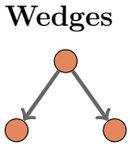
Wedges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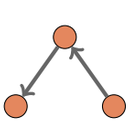
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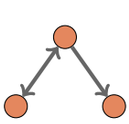
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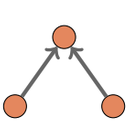
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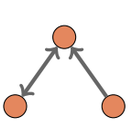
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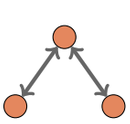
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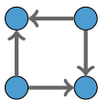
Quadrangles

Quadrangles with 4 edges (Q4)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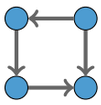
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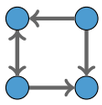
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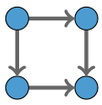
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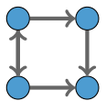
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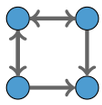
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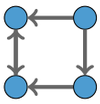
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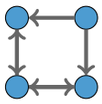
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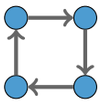
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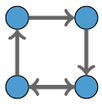
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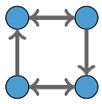
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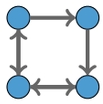
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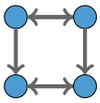
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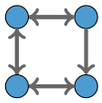
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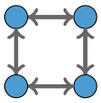
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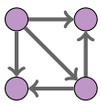
Quadrangles with 5 edges (Q5)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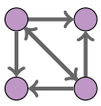
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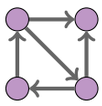
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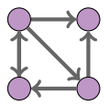
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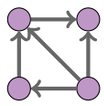
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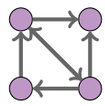
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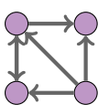
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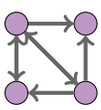
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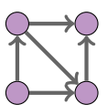
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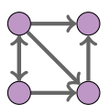
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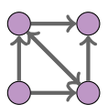
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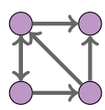
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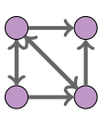
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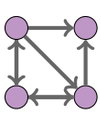
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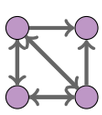
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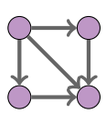
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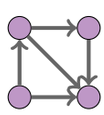
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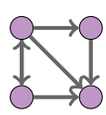
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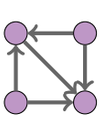
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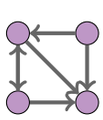
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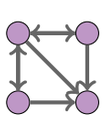
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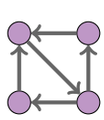
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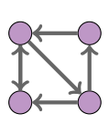
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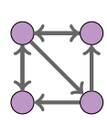
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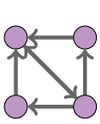
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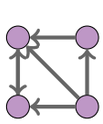
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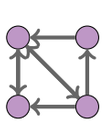
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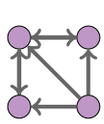
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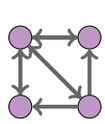
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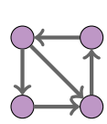
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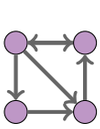
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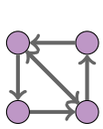
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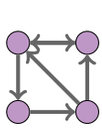
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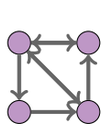
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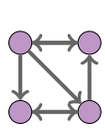
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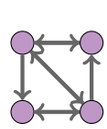
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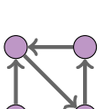
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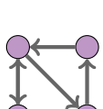
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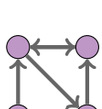
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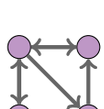
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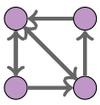
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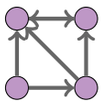
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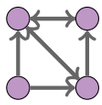
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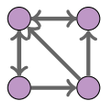
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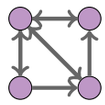
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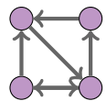
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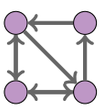
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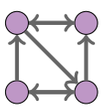
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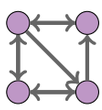
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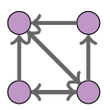
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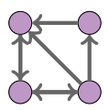
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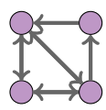
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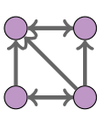
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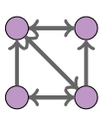
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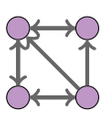
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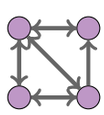
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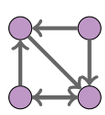
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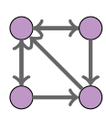
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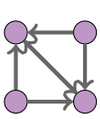
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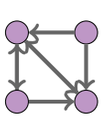
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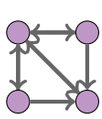
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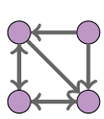
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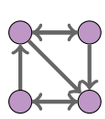
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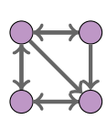
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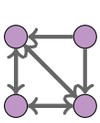
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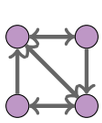
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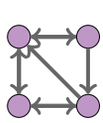
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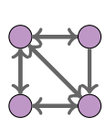
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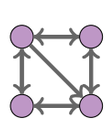
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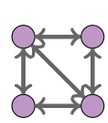
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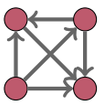
Quadrangles with 6 edges (Q6)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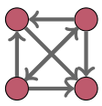
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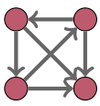
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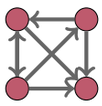
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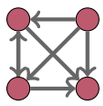
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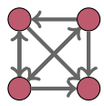
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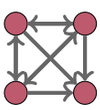
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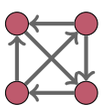
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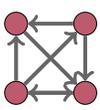
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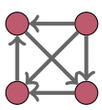
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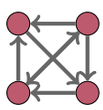
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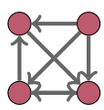
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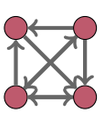
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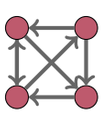
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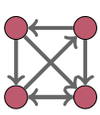
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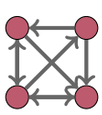
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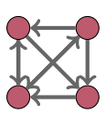
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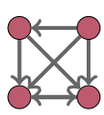
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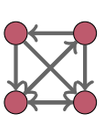
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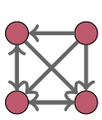
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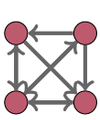
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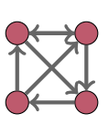
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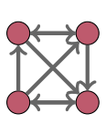
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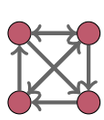
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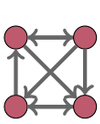
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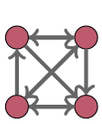
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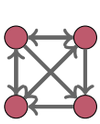
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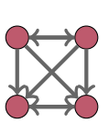
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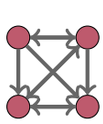
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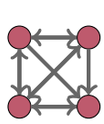
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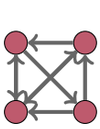
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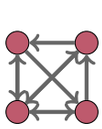
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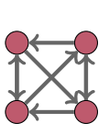
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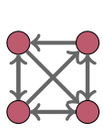
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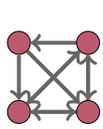
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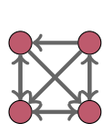
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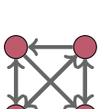
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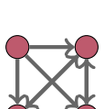
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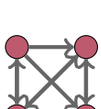
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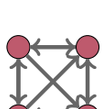
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