List of Motifs identifiers with their orbits used in `MARGOT`

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

Edges

E1 With this identifier, `MARGOT` returns a MAM equal to the initial graph.
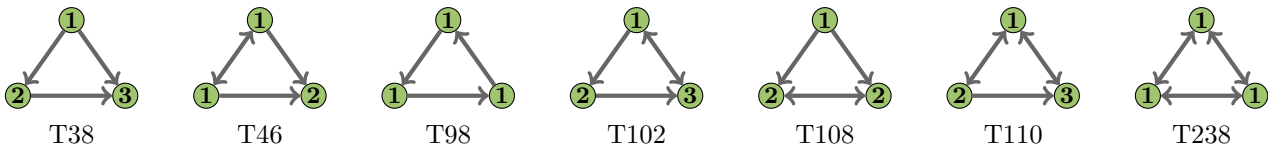
E2 With this identifier, `MARGOT` returns a MAM which is a symmetrisation of the initial graph. That is, given the initial directed graph whose adjacency matrix is $\mathbf{A} \in \{\mathbf{0}, \mathbf{1}\}^{\mathbf{n} \times \mathbf{n}}$, the output MAM is the undirected graph, whose adjacency matrix is

$$\mathbf{A_S} = \mathbf{A} + \mathbf{A^T} \in \{\mathbf{0}, \mathbf{1}, \mathbf{2}\}^{\mathbf{n} \times \mathbf{n}}.$$
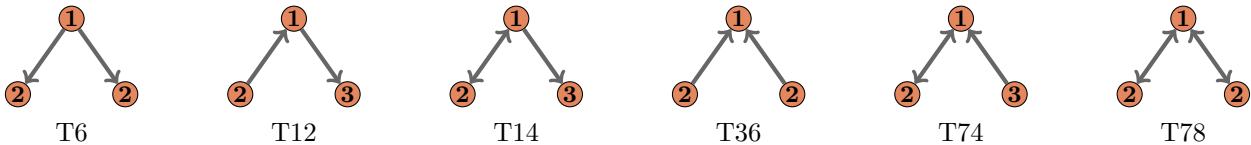
None of these motifs E1 and E2 provide a MAM in the formal sense.
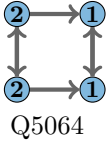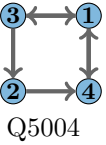
Three-Node Motifs

Triangles

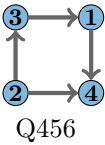| T38 | T46 | T98 | T102 | T108 | T110 | T238 |

Wedges

| T6 | T12 | T14 | T36 | T74 | T78 |

Quadrangles

Quadrangles with 4 edges (Q4)

Q204

Q456

Q460

Q904

Q908
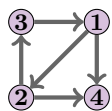
Q972

Q4548

Q4556

Q4740

Q4748

Q4812

Q5004
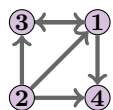
Q5064

Q5068

Q13260
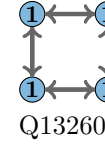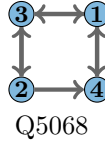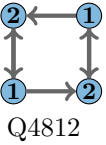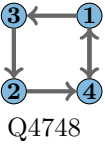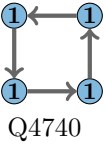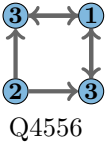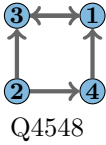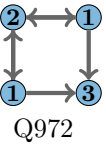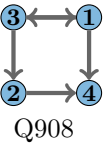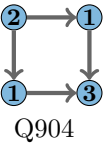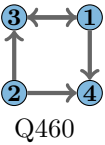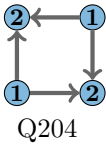
Quadrangles with 5 edges (Q5)
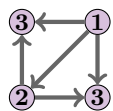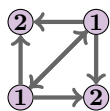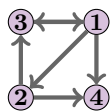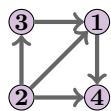
Q206   Q222   Q458   Q462   Q472   Q474
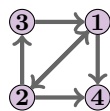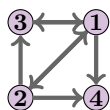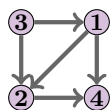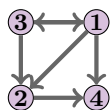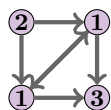
Q476   Q478   Q906   Q910   Q922   Q924
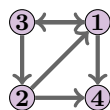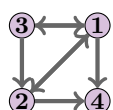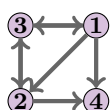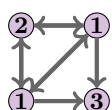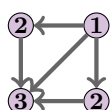
Q926   Q974   Q990   Q2190   Q2204   Q2206
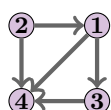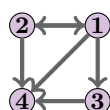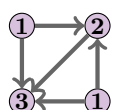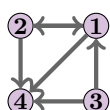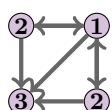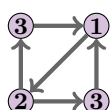
Q2252   Q2458   Q2462   Q4546   Q4550   Q4558
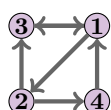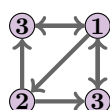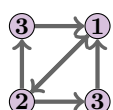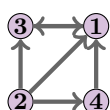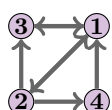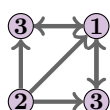
Q4562   Q4564   Q4566   Q4572   Q4574   Q4742
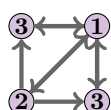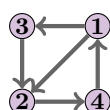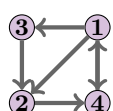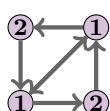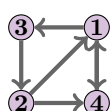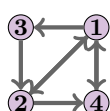
Q4750   Q4758   Q4764   Q4766   Q4814   Q4830
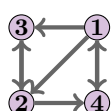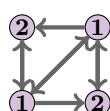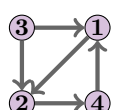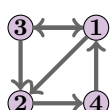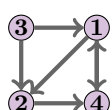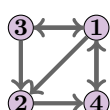
Q4994   Q4998   Q5002   Q5006   Q5010   Q5012
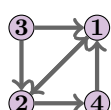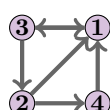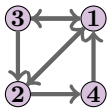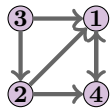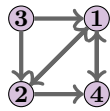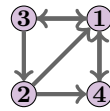
Q5014　Q5016　Q5018　Q5020　Q5022　Q5058
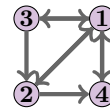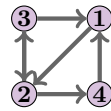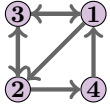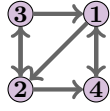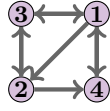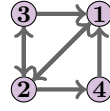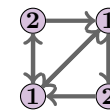
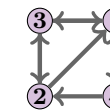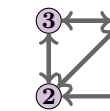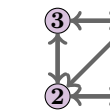Q5062　Q5066　Q5070　Q5074　Q5076　Q5078
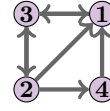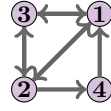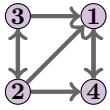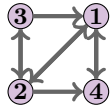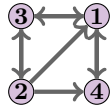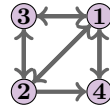
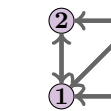Q5080　Q5082　Q5084　Q5086　Q6348　Q6550
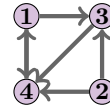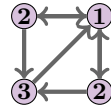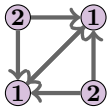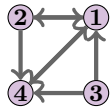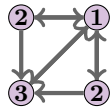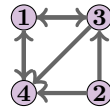
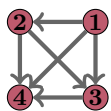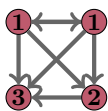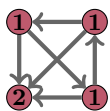Q6552　Q6554　Q6558　Q6604　Q6858　Q6874
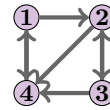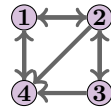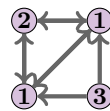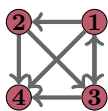
Q13142　Q13146　Q13148　Q13150　Q13262　Q13278

4

Quadrangles with 6 edges (Q6)

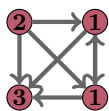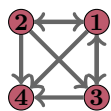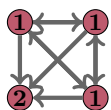Q2254 Q2270 Q2506 Q2510 Q2524 Q2526
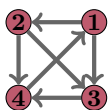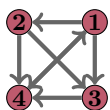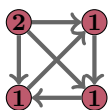
Q3038 Q6342 Q6350 Q6356 Q6358 Q6364
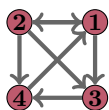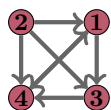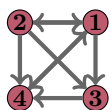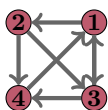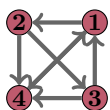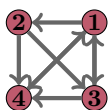
Q6366 Q6598 Q6602 Q6606 Q6614 Q6616
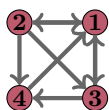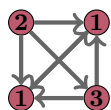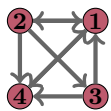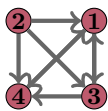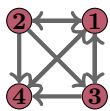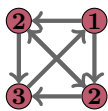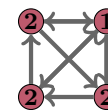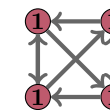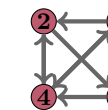
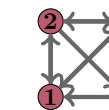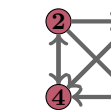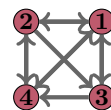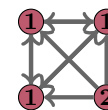Q6618 Q6620 Q6622 Q6854 Q6862 Q6870
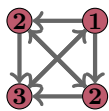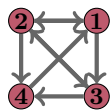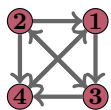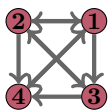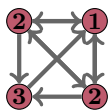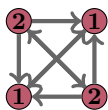
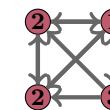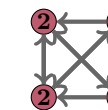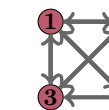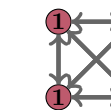Q6876 Q6878 Q7126 Q7128 Q7130 Q7134
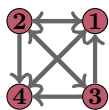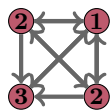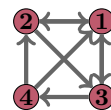
Q14678 Q14686 Q14790 Q14798 Q14810 Q14812

Q14814 Q15258 Q15262 Q15310 Q15326 Q31710

5