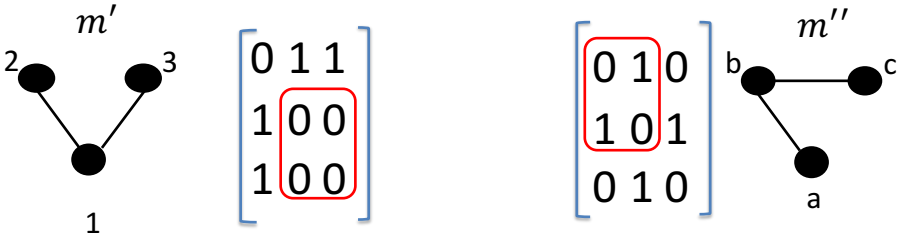
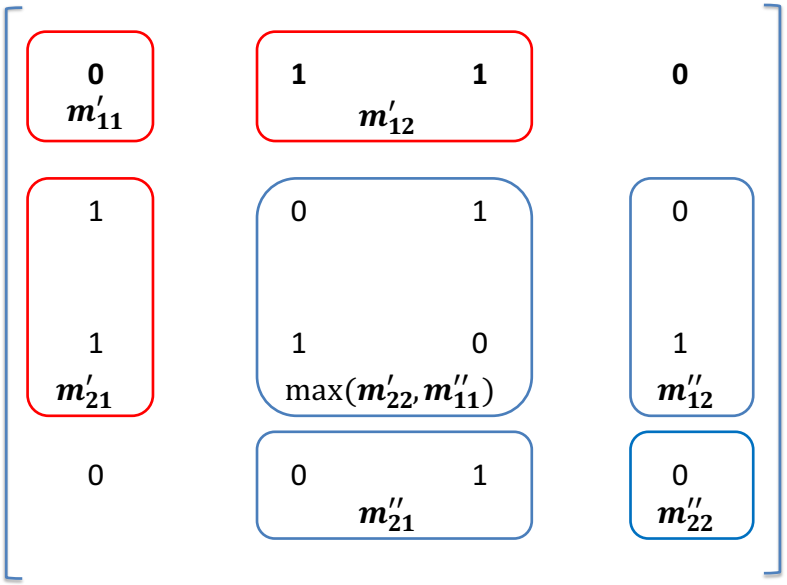
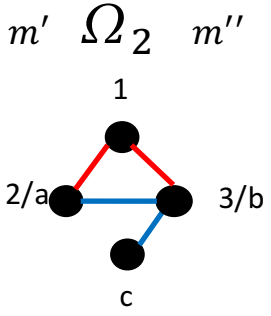
Figure 3. **Super-motif of a path of 3 nodes with overlap s=2.** The overlap indicates that the two motifs share two nodes. **(a)** Two non-redundant permutations of a path with 3 nodes with the corresponding adjacency matrix. The overlapping regions are represented (highligeted in red) by the bottom right submatrix of m' and upper left submatrix of m''. **(b)** The resulting adjacency matrix. The overlapping is applied by using an OR operator in each overlapping matrix position. **(c)** The super-motif will have four nodes. The number of edges is determined by the overlapping region.



(a)

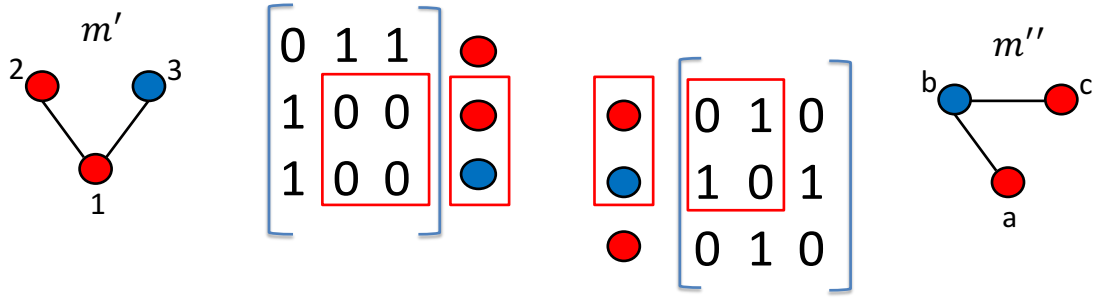


(b)

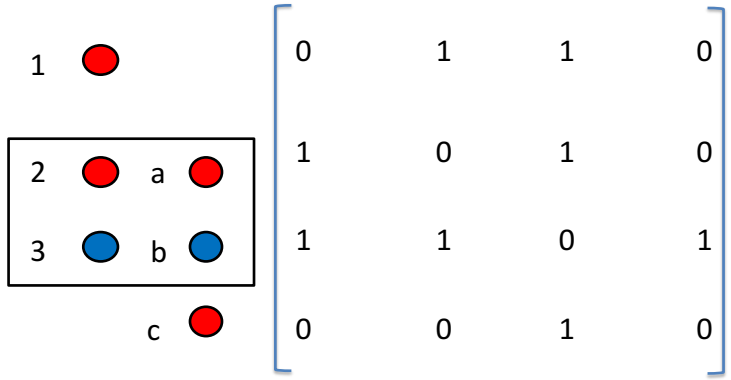


(c)

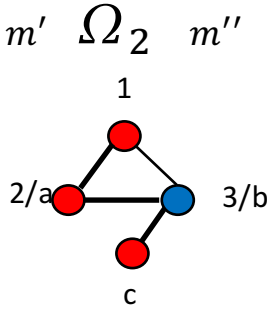
Figure 4 **Colored Super-motif of a path of 3 nodes with overlap s=2. (a)** Two non-redundant permutations of a path with 3 nodes. In this case to perform the overlapping the colors of the nodes have to be compatible. In this case the overlapping involves two nodes, the colors of the last two nodes in the m' motif have to be the same (in an inverted oders) of the first two nodes in the motif m'' (highligeted in red). **(b)** The resulting adjacency matrix. **(c)** The corresponding super-motif.



(a)



(b)



(c)