## Cell-complexes for surface diagrams and Roseman moves

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**Abstract.** A surface-knot is a connected oriented closed surface embedded in 4-space. If we project a surface-knot in 3-space, then we obtain a surface diagram that may have double points or triple points or branch points. The preimage of the set of multiple points is the union of two families of connected components called the upper and lower double decker set.

The lower decker set induces a cell-complex for the surface diagram. There is a set of local deformations of the cell-complex induced from Roseman moves.

In this talk we discuss about a relation between these local moves and cell-complexes.