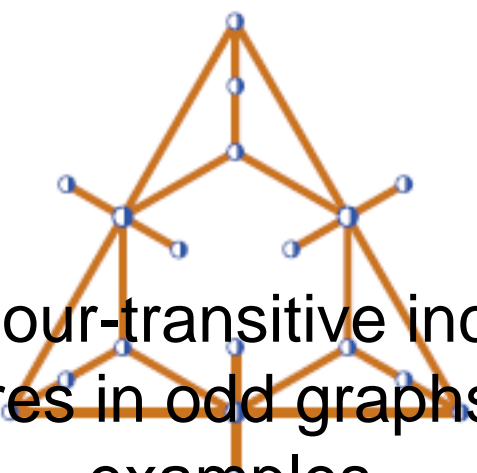


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Neighbour-transitive incidence structures in odd graphs, a few examples.

## Content :

For  $k > 0$  and a set  $X$  of size  $2k+1$ , the odd graph  $O_{k+1}$  is a  $(k+1)$ -regular graph whose vertices are the  $k$ -sets of  $X$  and in which two vertices are adjacent if and only if they are disjoint. For a subset  $\Gamma$  of  $V(O_{k+1})$ , the incidence relation between the elements of  $X$  and the elements of  $\Gamma$  yields an incidence structure. We define  $\Gamma_1$  as the set of neighbours of  $\Gamma$  in this incidence structure thus:  $\Gamma_1$  is the set of vertices of  $O_{k+1}$  that are not in  $\Gamma$  and are adjacent in the graph to at least one element of  $\Gamma$ . We place no restrictions on the choice of  $\Gamma$  but ask the automorphism group of this incidence structure to be transitive on  $\Gamma_1$ . In this talk we present some examples of these incidence structures.

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