

Background for these notes is:

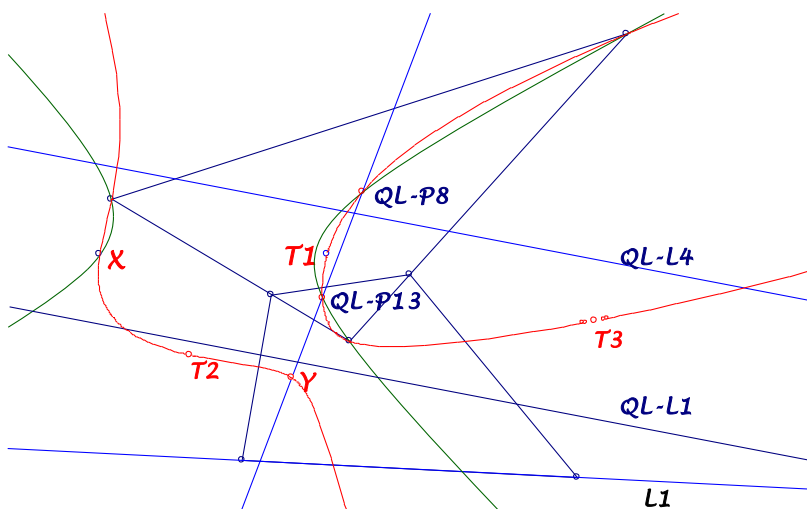
Chris van Tienhoven: Encyclopedia of Quadri-Figures

<http://chrisvantienhoven.nl/>

### A Line, a Conic and a Cubic wrt an Isoconjugation in the QL-environment

QL-Geometry is orientated in lines, first of all the side lines  $L_i$  of the Quadrilateral. Reference triangle is the triangle of the diagonals  $QL-Tr1$ . It seems obvious to consider the tripols  $T_i$  of the lines  $L_i$  wrt the reference triangle. These tripols can be taken as fix points of an isoconjugation wrt  $QL-Tr1$ , here named  $T$ -isoconjugation.

- The  $T$ -isoconjugation swaps  $QL-P8$  and  $QL-P13$ .
- The image of the line  $QL-P8, QL-P13$  is a circumscribed conic of  $QL-Tr1$ .
- This conic is the locus of all tripols of parallels to  $QL-L1$  or  $QL-L4$ .
- The tripol of  $QL-L1$  is  $QL-P13$ , the tripol of  $QL-L4$  shall be a point  $X$ .
- The conic contains the vertices of  $QL-Tr1$ ,  $QL-P8$ ,  $QL-P13$ ,  $QL-P24$  and the tripol  $X$  of  $QL-L4$ .
- The image of point  $X$  wrt the  $T$ -isoconjugation is a point  $Y$  on  $QL-P8, QL-P13$ .
- It is obvious to consider an isocubic wrt  $QL-Tr1$  for the  $T$ -isoconjugation and pivot  $Y$ .
- This isocubic contains the four tripols  $T_i$  of the lines of the Quadrilateral, the three vertices of  $QL-Tr1$ , the points  $QL-P8$ ,  $QL-P13$  and the tripol  $X$  of  $QL-L4$ .



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