On the Geometry of Field Extensions

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Summary. Let K be a (not necessarily commutative) field and denote by L a proper extension field of K. So we do not assume that K is a subfield of the centre of L.

We investigate the spread arising from this field extension and its chains. The major tool is the geometic concept of **transversal lines of a chain** which is closely related with the algebraic Cartan-Brauer-Hua theorem. Provided that one chain has a "sufficiently large" number of such transversal lines, both this chain as well as the given spread permit a simple geometric description by means of collineations.