

II Joint Conference of the Belgian, Royal Spanish and Luxembourg Mathematical Societies
Logroño, June 6–8, 2016

Geometric constructions as a transfer tool in Tropical Geometry

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Given an algebraically closed field provided with a valuation, tropical geometry can be seen as doing geometry on the value group alone. We will show a collection of situations that show the difference between classical and tropical geometry. The very first example is that, by two different points, there may be infinitely many distinct lines passing through them.

Equivalent theorems in classical geometry may not be equivalent in tropical geometry. But, if a theorem can be described by a geometric construction with certain properties, then if it is true in classical geometry, then it will be true in tropical geometry. We will also show that, in certain sense, tropical geometry must inherit properties from algebraic geometry over any characteristic.

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