Bernoullis Tafelrunde

GRADUATE STUDENT SEMINAR

20 October, 12:15-13:00 Grosser Hörsaal, Mathematisches Institut

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On the closure theorems of Steiner and Poncelet

Abstract

We outline the proofs of two classical theorems from Euclidean plane geometry concerning certain configurations of closed chains of circles or lines respectively. Steiner's theorem can be easily proved using a kind of transformation of the plane called circle inversion. In the case of Poncelet's theorem there is an elegant proof using more modern tools from projective algebraic geometry.