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Jaydeep Chipalkatti* (jaydeep.chipalkatti@umanitoba.ca). *Poncelet's Theorem over finite fields.*

Suppose that we are given two nonsingular conics A and B in the projective plane. Poncelet's closure theorem says that if there exists a triangle inscribed in A and circumscribed around B , then there exists a continuous family of such triangles. We will say that the conics satisfy the 'Poncelet triangle condition' if such is the case. In this talk, we will calculate the probability that a pair of randomly chosen conics in a finite projective plane satisfies the triangle condition. (Received February 01, 2016)