The Oliver Club

www.math.cornell.edu/~oliver/

Sergei Tabachnikov, Penn State University

Tire tracks geometry and complete integrability

This talk concerns a simple model of bicycle motion: a bicycle is a segment of fixed length that can move in the plane so that the velocity of the rear end is always aligned with the segment. I shall describe a recent proof of a 100-year-old conjecture concerning bicycle kinematics. I shall also discuss connections with the filament (or binormal, or smoke ring) equation, a well studied completely integrable dynamical system of soliton type.

Thursday, October 3, 2013
at 4:00 PM in 532 Malott Hall

Refreshments will be served at 3:30 PM in the Mathematics Department lounge (532 Malott Hall).