



The Math/Stats Colloquium
Department of Mathematics and Statistics
San José State University



Alex Ryba

Queens College, CUNY

The Pascal Mysticum

OCTOBER 15, 2014, MH320

Abstract: Pascal's Theorem states that the three intersections of opposite sides of a hexagon inscribed in a circle are collinear. We call their join a Pascal Line. The Pascal Mysticum is the configuration of points and lines constructed from the Pascal Lines of the 60 hexagons formed from 6 points. The configuration begins with 95 points and 95 lines that were discovered by Steiner, Plucker, Kirkman, Cayley and Salmon. The figure was then greatly expanded by Veronese.

I will give a short proof of Pascal's Theorem using analytic geometry (really just co-ordinate geometry). Then I will explain the mysticum and give new (computer generated) proofs of some of its properties. The talk is based on joint work with John Conway.

Background: High school geometry (e.g., through precalculus).

About the speaker: Alex Ryba is a finite group theorist. He got his PhD from the University of Cambridge in 1985 and is currently a member of the Computer Science Department at Queens College, CUNY.

SNACKS IN MH331B AT 2:30 PM
TALKS START AT 3 PM

For more information, see our full schedule at:

<http://www.math.sjsu.edu/~hsu/colloq/>