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 coordinate 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/