UMW Department of Mathematics Colloquium Announcement

The Subplanes of Figueroa Planes

Presented by

Bryan Petrak

Department of Mathematics
University of Delaware

Wednesday, October 26, 2011, 4 p.m.
140 Trinkle Hall

Abstract:

A finite projective plane is a collection of sets $\mathcal{L}$ with $\mathcal{P} = \cup_{\ell \in \mathcal{L}} \ell$ which satisfy the following axioms:

(1) For any distinct elements $x, y \in \mathcal{P}$ there is an $\ell \in \mathcal{L}$ with $\{x, y\} \subseteq \ell$.

(2) For any distinct sets $\ell_1, \ell_2 \in \mathcal{L}$, $|\ell_1 \cap \ell_2| = 1$

(3) $|\ell| \geq 3$ for all $\ell \in \mathcal{L}$

In this talk we will discuss the construction for a class of projective planes called the Figueroa plane and examine smaller projective planes known to be found in the Figueroa planes.

UNIVERSITY OF MARY WASHINGTON