1135-VO-2094    **Oscar Vega\*** (`ovega@csufresno.edu`). *Unitals in Figueroa planes.* Preliminary report.

Most of what is known about unitals is on those that can be embedded in $PG(2, q^2)$. However, unitals may be found in a wide variety of finite projective planes. Lately, quite a few results have appeared discussing the geometry of unitals embedded in 'unusual' planes, like the Figueroa plane of order $q^6$, $\mathcal{F}_{q^6}$, which is not even a translation plane.

Although it was known since 1998 (de Resmini and Hamilton) that $\mathcal{F}_{q^6}$ admitted the so-called Figueroa unital, it was not until 2012 that Hui and Wong were able to prove that this unital is not classical. No other unitals are known to exist in $\mathcal{F}_{q^6}$.

In this presentation we will explore the existence of unitals in $\mathcal{F}_{q^6}$ that are not the Figueroa unital. (Received September 25, 2017)