

Wednesday, December 7, 2016, 4:10 pm

COLLOQUIUM TALK

Speaker: **Alejandra Alvarado (EIU)**

Old Main 2231

## Arithmetic Progressions on Conic Sections

**Abstract:**

The set  $\{1, 25, 49\}$  is a 3-term collection of integers which forms an arithmetic progression of perfect squares. We view the set  $\{(1, 1), (5, 25), (7, 49)\}$  as a 3-term collection of rational points on the parabola  $y = x^2$  whose  $y$ -coordinates form an arithmetic progression. We provide a generalization to 3-term arithmetic progressions on arbitrary conic sections  $\mathcal{C}$  with respect to a linear rational map  $\ell : \mathcal{C} \rightarrow \mathbb{P}^1$ .

SNACKS IN FACULTY LOUNGE AT 3:30 PM.  
EVERYONE WELCOME (EVEN IF YOU ARE UNABLE TO ATTEND THE TALK)

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