MONTGOMERY AREA MATHEMATICS SEMINAR

Diophantine m-tuples

Speaker: **Prof. Florian Luca**

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Place: Goodwyn Hall 202; Time: 4:00, Wednesday, April 13, 2005

Refreshments at 3:45 pm

Abstract: Let n **be a nonzero integer. A set with the property** $D(n)$ **is a set of nonzero integers** $A=\{a_1,\ldots,a_m\}$ **such that** $a_i\ldots a_j +n$ **is a square for all** $i\leq j$. **What is of interest in general is to find upper bounds on** m, **the size of a set with the property** $D(n)$. **In my talk, I will survey various known results about this problem and report on a few new ones. For example, one of the new results is that if** n **is a prime, then** $m < 3*2^{144}$.

This work is joint with Andrej Dujella.