Diophantine m-tuples

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(Tea 3:30 pm Math Lounge)

Abstract

Let n be a nonzero integer. A set with the property $D(n)$ is a set of m nonzero integers such that each pairwise product is n less than a square. 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 $m < 3 \cdot 2^{144}$. This work is joint with Andrej Dujella.

This talk should be accessible to graduate students.