



AMERICAN UNIVERSITY
WASHINGTON, D C

THE DEPARTMENT OF MATHEMATICS AND STATISTICS COLLOQUIUM

Elliptic Curves from Mordell to Diophantus and Back

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3:30 p.m. on Friday, November 1st

Ward 303

Abstract: A reading of L. J. Mordell's "Diophantine Equations" raised several questions (to one of us) about solutions of cubic equations in two variables. Many years later, we found answers to these and other questions on a path which took us to Diophantus' "Arithmetica" and back to Mordell.

In this talk, we'll

- (a) define the rank of an elliptic curve,
- (b) explain why this might be interesting,
- (c) sketch a proof that in a certain family of elliptic curves (one of which Diophantus studied), there are infinitely many with rank at least 3, and
- (d) ask a few hard questions. (Answer one of them and win a million dollars!)

Presented by

THE AU MATH/STAT DEPARTMENT AND THE AU CHAPTER OF SIGMA XI

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Next Colloquium:

Tuesday, November 5, 2002 Ward 303

Andrew Pollington, National Science Foundation
Haar Wavelets and irregularities of distribution
