Philadelphia Area Number Theory Seminar

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Binary necklaces from binary quadratic forms

Abstract: After a brief introduction to binary quadratic forms, I will present an algorithm to construct a binary necklace from a class of indefinite binary quadratic forms. This (nearly) gives a bijection between primitive classes of forms and primitive binary necklaces. The bulk of the talk will then cover some nice properties and applications of the construction. This will include a trip through the beautiful theory of Markoff's forms and a complete classification of the forms of the type $ax^2 + (ab+2)xy + by^2$ that represent classes of order 1, 2, 3, or 4 in the class group.

Wednesday, September 21, 2016
3:10–4:30PM

Bryn Mawr College
Department of Mathematics
Park Science Center **328**

Tea and refreshments at 2:50PM in Park 355