

CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, December 4
2:00 – 3:00 PM
Maria Sanford, Room 101

SYMMETRIES OF ARITHMETIC SPACES

MARIAN ANTON

CENTRAL CONNECTICUT STATE UNIVERSITY

Abstract: Euclid constructed the first example of arithmetic space X with the compass and ruler. In this talk, we use linear algebra to study the symmetries G of such an arithmetic space. In particular, we represent these symmetries by matrices over algebraic integers and distinguish in G a subgroup U of diagonal matrices. Then we assign to G a module of invariants $M(G)$ and discuss recent progress towards understanding the induced map from $M(G)$ into $M(U)$. Since U is a product of cyclic groups, then the calculation of the module $M(G)$ is brought within range if the map is injective.

For further information:
gotchevi@ccsu.edu 860-832-2839
<http://www.math.ccsu.edu/gotchev/colloquium/>