

COLLOQUIUM

Andrew Earnest

10-6-16

Neckers 156

Time: 3:00pm

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Abstract: In 1027, L.E. Dickinson introduced the term 'regular' to refer to a positive definite ternary integral quadratic form with the property that it represents all the positive integers not ruled out for representation by congruence conditions. In more modern terminology, the regular forms are those for which a local-global principle holds for the representation of integers. Since that time, quadratic forms and lattices with this property and various natural generalizations of it have been studied exclusively. In this talk, we will give an overview of some of the main results that have been obtained, describe some recent advances, and indicate some remaining open problems on these interesting classes of lattices.

INTEGRAL QUADRATIC FORMS and LATTICES SATISFYING REGULARITY CONDITIONS