

Department of Mathematics, BGU

Algebraic Geometry and Number Theory

On Wednesday, November ,15 2017

At 15:10 – 16:30

In Math 101-

Stephen Moore (BGU)

will talk about

Non-Semisimple Planar Algebras from Restricted Quantum sl_2

Abstract: Planar algebras are a type of diagrammatic graded algebra, introduced to axiomatize the standard invariant of subfactors. The fundamental example is the Temperley-Lieb algebra which can be constructed as $\text{End}(X^n)$, where X is a quantum sl_2 module. Recently, there has been interest in a finite dimensional version of quantum sl_2 , known as restricted quantum sl_2 , and it has been conjectured that its representation theory is equivalent to a logarithmic conformal field theory. We aim to generalize the Temperley-Lieb construction to the restricted case, giving generators and relations of the planar algebra, and describing morphisms between indecomposable modules diagrammatically.