

Stavros Garoufalidis

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will speak on

Asymptotics of spin networks

ABSTRACT: Spin networks are abstract colored graphs that appear in representation theory of $SU(2)$, in angular momentum of moving bodies, and in various theories of gauge theory and quantum gravity in 3 dimensions. The evaluation of a spin network is a finite sum which is an integer number. The talk will focus on the asymptotics of a spin network evaluation when the color is large. This recovers previously unknown geometric and arithmetic properties of the abstract graph. We will illustrate our results (joint with Roland van der Veen) with numerous examples, using a little bit of number theory, algebraic geometry, combinatorics and hyperbolic geometry.

WEDNESDAY, 30 SEPTEMBER 2009

LECTURE AT 4:00 PM

COFFEE, TEA, AND REFRESHMENTS FROM 3-5 PM

ROOM 617, WACHMAN BUILDING

DEPARTMENT OF MATHEMATICS