

## 1st Spring Meeting

## Thursday, February 21st

12:15-12:50 PM in Hume 101

## Octonions-or how many square roots of $\mathbf{- 1}$ are there?

## by Przemo Kranz.

Abstract: As complex numbers are constructed out of real numbers, so quaternions are constructed out of complex numbers. Quaternions, in turn, are the building blocks of a still more "complex" set of objectsoctonions. Octonions form an eight dimensional normed division algebra, a basis of which contains seven elements whose squares are all -1 .

A one-time payment of $\mathbf{\$ 1 0}$ covers your pizza lunch, including drink, for all four meetings this semester!

Hope to see you on Thursday!

