Manjul Bhargava

from Princeton University

Thursday, October 15th
5:30pm in MSC E208

(large lecture room)

Counting problems in number theory

Abstract: There are some objects in number theory that are particularly fundamental -- examples include "number fields", "class groups", and "elliptic curves" -- yet very little is known about how many such objects there are having given invariants, or how these objects are distributed with respect to these invariants. This talk will describe why number theorists are so interested in these questions and discuss a few recent results that give some answers.

Bio: Manjul Bhargava has been in the news since he won the Morgan Prize in 1997 for outstanding research by an undergraduate. He graduated with his PhD from Princeton in 2001 with a stunning thesis that was published in a series of articles in *Annals of Mathematics*. He was hired back at Princeton just two years later as a full professor. He has won many awards for his research, including the Cole Prize for number theory. He is also known for his excellent writing (for which he was awarded the Merten M. Hasse Prize), for his clear and engaging talks, and for his tabla playing. This talk is aimed at a general mathematical audience and will be understandable by undergraduate math majors.