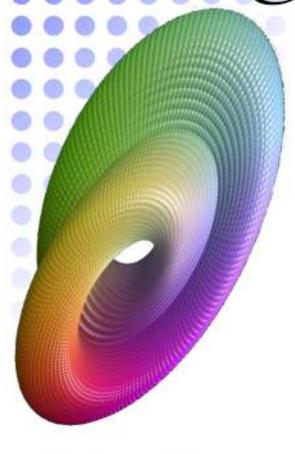# Michigan Math Club

Collegiate Professorship Inaugural Lecture
Thursday at 4pm in Rackham Amphitheater

Arithmetic in Geometry

Gopal Prasad

Abstract for 13 November

In this talk, after some historical remarks about the role played by geometry in the development of mathematics (arithmetic in particular), inevitability of certain mathematical developments, and speculation about whether our mathematics is unique, I will describe how arithmetic has played an important role in my recent work on construction and classification of certain very interesting algebraic surfaces and in the study and solution of Mark Kac's famous question "Can one hear the shape of a drum?" in differential geometry. My work uses algebraic, analytic, and transcendental number theory.