Department of Mathematics and Statistics Colloquium

Crazy Bases: Fractions and Twoandthree

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Abstract: We all know how to represent numbers in positional notation using base ten, and some of us even use other natural number bases and know how to do arithmetic in them. Classically, fractional bases lead to infinitely long representations for simple natural numbers. But we shall see how we can finitely represent natural numbers in base p/q $(p > q)$ using the digits $0, 1, \cdots, p-1$, and even do arithmetic on them. Even more bizarrely, we shall see how we can represent integers and fractions using digits that are simultaneously correct in base two AND base three.
This colloquium will be accessible to anyone who has mastered arithmetic in base ten.

Monday, March 11 at 3:50 in Roop 103

Refreshments at 3:30