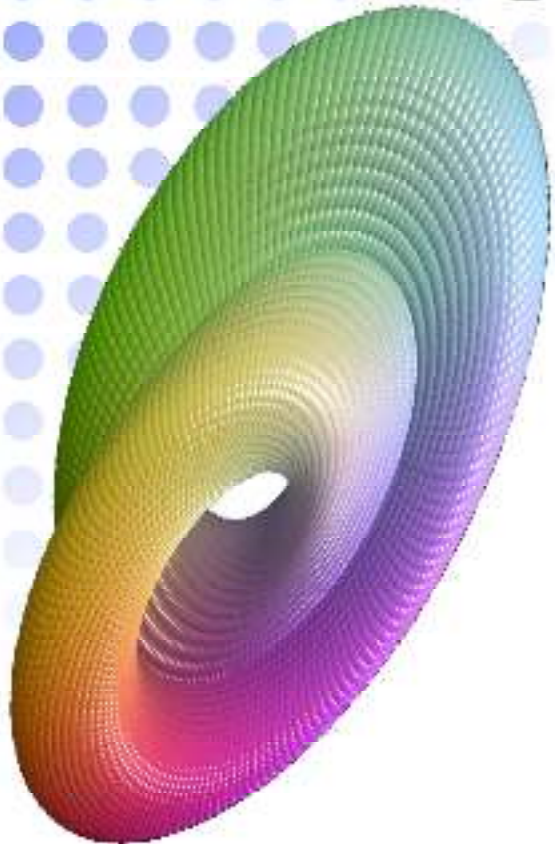
Michigan Math Club

Thursday at 4pm in the Commons

Free Pizza and Pop



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Kevin Wilson

(Princeton)

Abstract for 12 March

Like π and e, the numbers $n! = n \cdot (n-1) \cdot \cdots \cdot 2 \cdot 1$ seem to appear everywhere in mathematics. Consequently, it has many interesting properties. For example, suppose a_0, a_1, … , a_n are any (n+1) integers. Then $\prod_{i<j}(a_i - a_j)$ is divisible by $0! \cdot 1! \cdot \cdots \cdot n!$. In his undergraduate thesis Bhargava introduced a generalization of the factorial function that enjoys many similar properties, including the habit of showing up everywhere. In this talk, I will introduce this function and demonstrate some of these properties as well as some of its applications in number theory.