

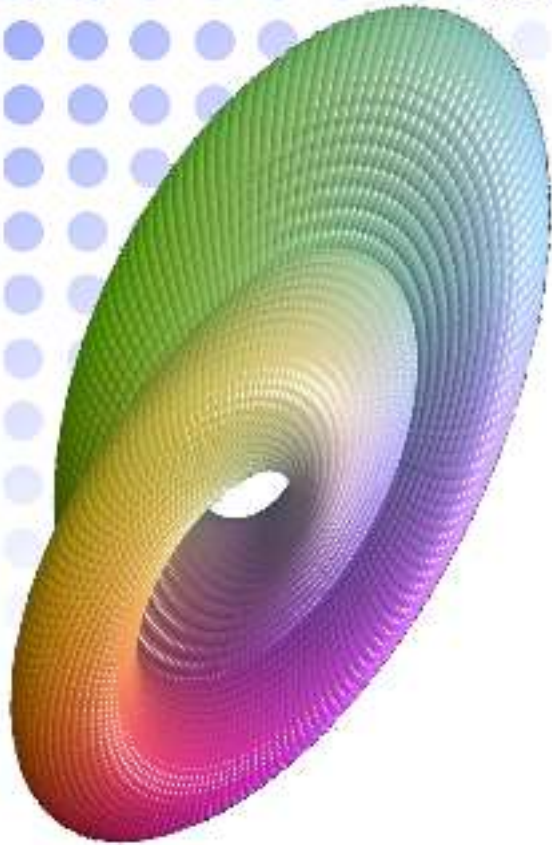
# Michigan Math Club

Thursday at 4pm in the Nesbitt Room  
Free Pizza and Pop

## Cohn's Irreducibility Criterion

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Abstract for 15 March



Polynomials are to irreducible polynomials as integers are to prime numbers. Discussion of irreducible polynomials is often limited to algebra class, and the techniques learned for proving irreducibility are usually purely algebraic. In this talk we shall prove Cohn's irreducibility criterion which tells you that if you take your favorite prime number,  $p$ , and write it in your favorite base,  $b$ , as  $p = b_n b_{n-1} \cdots b_0$ , then the polynomial  $b_n x^n + \cdots + b_0$  is irreducible over the integers. The proof is entirely elementary and analytic in nature.