

# Michigan Math Club

Thursday at 4pm in the Nesbitt Room

Free Pizza and Pop

The fundamental theorem of algebra,  
Bezout's theorem, and coloring surfaces

David Speyer

Abstract for 6 April

If  $f(x)$  is a polynomial of degree  $d$ , it then it has  $d$  roots over the complex numbers (subject to some caveats). If  $g(x,y)$  and  $h(x,y)$  are polynomials of degree  $a$  and  $b$ , then  $g(x,y) = h(x,y) = 0$  has  $ab$  complex roots (subject to more caveats). We will prove these theorems by coloring, first the plane, and then other surfaces.

