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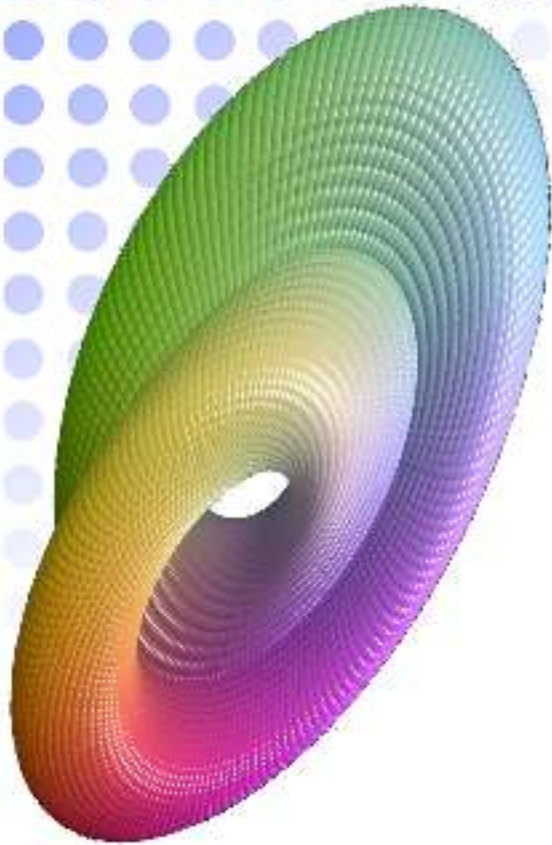
Thursday at 4pm in the Nesbitt Room
Free Pizza and Pop

Combinatorial Species and Generating Functions

Trevor Hyde

Abstract for 9 February

Combinatorial species are structures built from a finite set. Think: graphs, trees, permutations, orders, cycles, etc. A basic problem of combinatorics is to count structures on a finite set. Species provide a beautiful framework for solving this general problem and are closely related to the method of generating functions. We will work out the basic theory of species then look at some of my favorite examples.