

# Michigan Math Club

Thursday at 4pm in the Commons

Free Pizza and Pop



## The Pancake Flipping Problem

Jeffrey Lagarias

Abstract for 17 Sept 2009



“The chef in our place is sloppy, and when he prepares a stack of pancakes they come out all different sizes. Therefore, when I deliver them to a customer, on the way to the table I rearrange them (so that the smallest winds up on top, and so on, down to the largest at the bottom) by grabbing several from the top and flipping them over, repeating this (varying the number as I flip) as many times as necessary. If there are  $n$  pancakes, what is the maximum number of flips (as a function  $f(n)$  of  $n$ ) that I will ever have to use to rearrange them? “