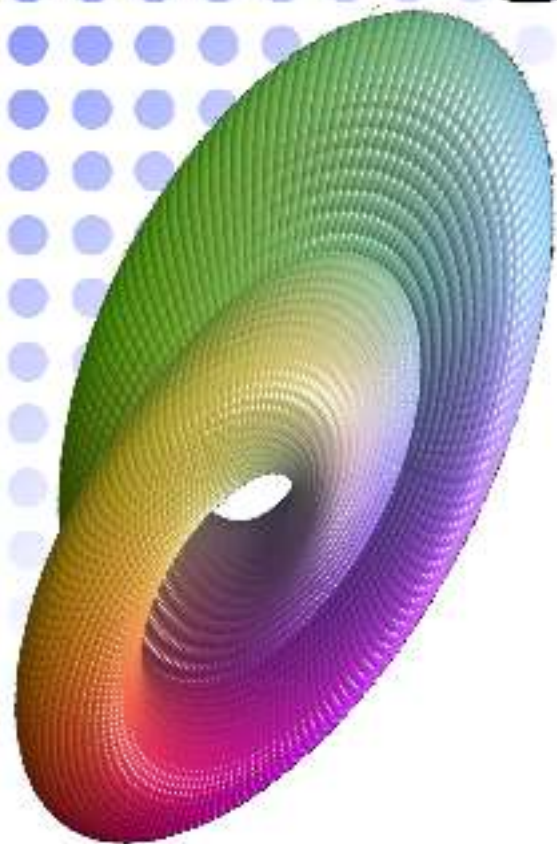


Michigan Math Club

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



How to Multiply

Martin Strauss

Abstract for 15 September 2011

How do computers multiply large numbers, quickly? Grade-school multiplication of two big numbers takes a lot of work. Remarkably, the Fast Fourier Transform algorithm makes multiplication (on a computer) almost as easy as addition. We also discuss related problems, such as quick evaluation of a degree 99 polynomial on 100 points, quickly finding the unique degree 99 polynomial through a given set of 100 points, and modular remaindering of numbers and polynomials.

