

**Undergraduate Math Club
Winter 2005
2nd floor Nesbitt Common Room
February 3, 4:10-5:00pm
(free pizza and pop, as always)**

The EKG Sequence

Professor Jeffrey Lagarias

Abstract

The EKG sequence $a(n)$ is the sequence of integers starting $a(1)=1$, $a(2)=2$, and each subsequent $a(n)$ is the least positive integer that has not yet appeared which has a nontrivial greatest common divisor with $a(n-1)$; thus $a(3)=4$, $a(4)=6$, $a(5) = 3$ etc. We shall discuss what is known about this sequence (and related integer sequences), what is unknown, where the name of this sequence comes from, and why would people study such sequences.