

1023-11-983

**Stefan Erickson\*** ([Stefan.Erickson@ColoradoCollege.edu](mailto:Stefan.Erickson@ColoradoCollege.edu)), Dept. of Mathematics and Computer Science, Colorado College, 14 E. Cache La Poudre St., Colorado Springs, CO 80903.

*Prime Divisibility in the Lucas Numbers.*

The Lucas numbers are defined by the recurrence relation  $L_{n+2} = L_{n+1} + L_n$  with the initial conditions  $L_1 = 1$  and  $L_2 = 3$ . This sequence has many connections with the Fibonacci numbers, which shares the same recurrence. Unlike the Fibonacci numbers, not every prime divides some Lucas number. In this talk, we give a condition for a prime to divide some Lucas number. We also calculate the density of primes which divide the Lucas numbers. (Received September 24, 2006)