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5500 Wabash Avenue, Terre Haute, IN 47803-3999. *Roots of Fibonacci-Coefficient Polynomials.*

The Fibonacci-coefficient polynomials (FCP) are generated by the classic Fibonacci sequence  $\{F_0, F_1, F_2, \dots\} = \{0, 1, 1, \dots\}$  in the following way: Set  $p_0(x) = F_1 = 1$ , and  $p_i(x) = xp_{i-1}(x) + F_{i+1}$  for  $i \geq 1$ . The FCP sequence is distinct from the well-known Fibonacci polynomial sequence.

At the 2006 Joint Meetings, the speaker discussed the number and behavior of the real roots of a given FCP, which is dependent upon the parity of the FCP's degree. The speaker will now present alternate, and more efficient, proofs concerning the real roots of FCP's, as well as show, using Rouché's Theorem, that the (complex) roots of the FCP's approach the golden ratio in modulus, as the degree of the FCP increases without bound. The speaker will conclude by presenting various avenues for further research.

This is joint work with David Garth (Truman St. University), Patrick Mitchell (Midwestern St. University) and James Sellers (The Pennsylvania State University). (Received September 22, 2006)