

1106-VQ-1404 **Rigoberto Florez*** (rflorez1@citadel.edu), 171 Moultrie st, The Citadel, Mathematics Department, Charleston, SC 29409, and **Robinson Higuita** and **Antara Mukherjee**, 171 Moultrie st, The Citadel, Department of Mathematics, Charleston, SC 29409. *Some algebraic and geometric properties of Fibonacci Polynomials in the Hosoya triangle.*

Fibonacci polynomials is a polynomial sequence generated by a second order recurrence relation. The Hosoya triangle polynomial is a triangular arrangement of polynomials similar to Pascal triangle where the entries are product of Fibonacci polynomials. We use this geometric representation of product of polynomials to construct a discrete convolution.

In this talk we discuss how the convolution gives rise to closed formulas for the alternating sum of products of polynomials such as Fibonacci polynomials, Chebyshev polynomials, Morgan-Voyce polynomials, and other familiar sequences of polynomials. (Received September 12, 2014)