

## SOME RESULTS FOR THE ZEROS OF A CLASS OF FIBONACCI-TYPE POLYNOMIALS

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*Abstract.* In this article, we obtain a rectangle that contains all the zeros of a class of Fibonacci-like polynomials. Then we obtain some relations and majorizations for the real and imaginary parts of the zeros of such polynomials.

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### REFERENCES

- [1] F. MÁTYÁS, *Bounds for the zeros of Fibonacci-like Polynomials*, Acta Acad. Paedagog. Agriensis Sect. Mat., **25** (1998): 15–20.
- [2] P. E. RICCI, *Generalized Lucas polynomials and Fibonacci polynomials*, Riv. Mat. Univ. Parma, **4** (1995): 137–147.
- [3] Y. WANG AND M. HE, *Zeros of a class of Fibonacci-type polynomials*, the Fibonacci quarterly, **42.4** (2004): 341–347.
- [4] R. BHATIA, *Matrix Analysis*, Springer, New York, 1997.
- [5] R. A. HORN AND C. R. JOHNSON, *Matrix Analysis*, Cambridge Univ. Press, Cambridge, 1985.
- [6] R. A. HORN AND C. R. JOHNSON, *Topics in Matrix Analysis*, Cambridge Univ. Press, Cambridge, 1991.
- [7] T. AMDEBERHAN, *A note on Fibonacci-type polynomials*, Integers **10** (2010), 13–18.
- [8] S. HALICI, *On some Fibonacci-type polynomials*, Applied Mathematical Sciences, **6**, 22 (2012), 1089–1093.