

1086-32-1948

Greg Knese* (geknese@bama.ua.edu), University of Alabama, 145 Gordon Palmer Hall, Box 870350, Tuscaloosa, AL 35487-0350, and **Jeffrey S Geronimo** and **Plamen Iliev**. *Polynomials with no zeros on a face of the bidisk*. Preliminary report.

Geronimo and Woerdeman characterized when a positive bivariate trigonometric polynomial can be factored the square of a single stable polynomial (i.e. no zeros on the closed bidisk). The present work relaxes this stability condition to only require no zeros on a closed face of the bidisk. An interesting by product is a sum of squares formula for such polynomials. (Received September 24, 2012)