

M. Arciero

PUBLICATIONS:

- Asymptotics for for Szego polynomials of Polya type”, submitted, *Journal of Mathematical Analysis and Applications*.
- “Asymptotics for for Szego polynomials with respect to a class of weakly convergent measures”, *accepted, Journal of Concrete and Applicable Mathematics, June, 2009* \
- “A limit theorem for Szego polynomials with respect to convolution of point masses with the Fejer kernel”, *Journal of Math. Analysis and App.*, 327 (2007), 908-918.
- “Limits for Szego polynomials in frequency analysis”, *Journal of Math. Analysis and App.*, 304 (2005) pp. 321-335.
- “The Role of Orthogonal Polynomials in Autoregressive Methods for Noise Cancellation in Acoustic Arrays”, *Proceedings, Twelfth Annual ARL and USMA Technical Symposium, Aberdeen Proving Ground, Maryland, November 2004, pp. 71-79*
- “Some algorithms for attenuation of broadband noise in ground arrays ”, *Proceedings, Eleventh Annual ARL and USMA Technical Symposium, Aberdeen Proving Ground, Maryland, November 2003.*
- “An approach to attenuation of broadband platform noise”, *Proceedings, 2002 Military Sensing Symposium, Battlefield Acoustics, Johns Hopkins University, Maryland, September 2002.*
- “Attenuation of broadband platform noise using noise references”, *Proceedings, Tenth Annual ARL and USMA Technical Symposium, Aberdeen Proving Ground, Maryland, November 2002.*
- “Some Open Problems About Solutions of the Delay Difference Equation”
$$x_{n+1} = \frac{A}{x_x^2} + \frac{1}{x_{n-k}^p}$$
 (with G. Ladas and S. Schultz), *Proceedings of the Georgian Academy of Sciences. Mathematics 1(1993), No. 3, 257-262.*

PAPERS IN PREPARATION/ CURRENT RESEARCH:

1. “On the autocorrelation matrix inverse for autoregressive processes”, manuscript in preparation, to be submitted, *Journal of Linear Algebra*.

2. Genomics signal processing; adaptive signal processing algorithms for identification of DNA coding regions.
3. An application of Weyl's equidistribution theorem to the Pythagorean musical scale.
4. Adaptive filtering approach to gene detection.