

1135-42-2061

**John E. Herr\*** (jeherr@butler.edu), **Eric S. Weber** and **Palle E. T. Jorgensen**. *A Matrix Characterization of Boundary Representations of Positive Matrices in the Hardy Space.*

Given a positive matrix  $K_C$  in the Hardy space induced by a bi-infinite matrix  $C$  forming a bounded operator on  $\ell^2$ , we characterize those Borel measures on  $\mathbb{T}$  with respect to which  $K_C$  has a boundary representation. This characterization is in terms of a matrix identity obtained by introducing a new matrix product called the Abel product. (Received September 25, 2017)