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**Paul S. Muhly** and **Baruch Solel\*** (mabaruch@tx.technion.ac.il), Department of Mathematics, Technion, 32000 Haifa, Israel. *Matricial function theory and weighted shifts.*

Let  $H^\infty(E)$  be the Hardy algebra of a  $W^*$ -correspondence  $E$  over a  $W^*$ -algebra  $M$ . These algebras are generated by a copy of  $M$  and shifts (defined by the elements of  $E$ ). Each element  $F \in H^\infty(E)$  gives rise to a family  $\{\widehat{F}_\sigma\}$  of analytic operator valued functions where  $\sigma$  runs over the normal representations of  $M$  and  $\widehat{F}_\sigma$  is defined on the (open) unit ball of the operator space  $E^{\sigma^*}$  ( associated with  $E$  and  $\sigma$ ). Such a family exhibit “matricial structure” that we studied in previous works (inspired by works of Joseph Taylor, Kaliuzhnyi-Verbovetskyi and Vinnikov , D. Voiculescu and others).

In this talk I will show that one can study matricial families of operator-valued functions defined on more general matricial sets (not necessarily unit balls) by studying Hardy algebras generated by a copy of  $M$  and *weighted* shifts. This work generalizes some results of G. Popescu. (Received September 07, 2014)