

1116-VB-1005

George R. Exner (exner@bucknell.edu), Lewisburg, PA, **Joo Young Jin*** (pss9611@knu.ac.kr), Daegu, South Korea, and **Il Bong Jung** (ibjung@knu.ac.kr), Daegu, South Korea. *On Hamburger-type weighted shifts*. Preliminary report.

Let $\alpha = \{\alpha_n\}_{n=0}^{\infty}$ be a sequence of positive real numbers and let W_α be an associated weighted shift with weight sequence α . Define $\gamma_n := \alpha_0^2 \cdots \alpha_{n-1}^2$ ($n \geq 1$) with $\gamma_0 = 1$. It is known that the positivity of both of the infinite matrices $(\gamma_{i+j})_{0 \leq i, j < \infty}$ and $(\gamma_{i+j+1})_{0 \leq i, j < \infty}$ is an equivalent condition for subnormality of W_α . The positivity of $(\gamma_{i+j})_{0 \leq i, j < \infty}$ is closely related to the Hamburger moment sequence. For $n \in \mathbb{N} \cup \{\infty\}$, the positivity of $(\gamma_{i+j})_{0 \leq i, j < n}$ induces a new property $H(n)$ of W_α . We discuss some flatness properties, completion problem and Aluthge transforms of W_α with property $H(n)$. In addition, we give a formula of property $H(n)$ in some examples W_α . (Received September 15, 2015)