1030-40-223 **J. Connor*** (connor@math.ohiou.edu), Department of Mathematics, Ohio University, Athens, OH 45701, and **J. Kline**, Department of Mathematics, Washington and Jefferson University, Washington, PA 15301. *Densities on* $\mathbf{N} \times \mathbf{N}$ *constructed from regular summability matrices.* Preliminary report.

Let $X$ be a nonempty set, $\Gamma$ a field of subsets of $X$, and $\mathcal{K} = (K_n)$ be an increasing sequence of subsets of $X$ such that $K_0$ is nonempty and $X = \cup_n K_n$. A density $\mu : \Gamma \to [0,1]$ with $\mathcal{K}$ -null sets is a finitely additive function with the properties that subsets of null sets are null sets, $\mu(X) = 1$, and, if $A \subset K_n$ for some $n$,then $\mu(A) = 0$. Densities need not be countably additive, but may exhibit the *additive property*, i.e., given an increasing sequence of sets $< A_n >$, $A_n \in \Gamma$ for all $n$, there is a set $A \in \Gamma$ such that $A \backslash A_n$ is subset of an element of $\mathcal{K}$ and $\mu(A) = \lim_n \mu(A_n)$ . It is known that regular summability methods generate densities on $\mathbf{N}$ that have the additive property. Densities on $\mathbf{N} \times \mathbf{N}$ generated by RH regular methods need not have the additive property. We also discuss a method for using regular summability methods to create densities on $\mathbf{N} \times \mathbf{N}$ that have the additive property. (Received August 03, 2007)