1176-20-172 **Thomas W. Tucker*** (ttucker@colgate.edu) and **Marston Conder** (m.conder@auckland.ac.nz). *Genus Spectrum Density for Signatures.*

Given a subset X of the non-negative integers, let $X_n = \{x \in X : x \leq n\}$. We say the set X has *density* δ if $\lim_{n\to\infty} |X_n|/n = \delta$; when this limit does not exist, we can also use $\limsup$ and $\liminf$ to define an upper and lower density. For a collection C of group actions on orientable closed surfaces, we let $GS(C)$ be the *genus spectrum* for the collection C, and we can then talk about its density. We are interested in fixing a Riemann surface signature σ and computing the density of $GS(\sigma)$. Extending work of May and Zimmerman, we use a theorem of Bertram on density of group orders to show that for $GS(0; r, s, t)$, that is for orientably regular hypermaps of type (r, s, t), the density is 0 if any of r, s, t is relatively prime to the other two. We conjecture it is 0 for all r, s, t. Even when the density is 0, we are also interested in asymptotic information about $|GS_n(\sigma|$ or the ratio $|GS_n(\sigma_1)|/|GS_n(\sigma_2)|$ for different signatures σ_1, σ_2. (Received January 21, 2022)