1125-11-1391 **Alexander Borselli*** (apb211@lehigh.edu), Christmas Saucon Hall, 14 E. Packer Ave., Bethlehem, PA 18015. *ρ-Minimal Transitive Permutation Groups and Ranks of CM Types in Degree* 24.

The rank of an Abelian variety A of type (K, Φ), $t(A) = t(\Phi)$, is the rank of the free $\mathbb{Z}$-module M spanned by the G-orbit of Φ, where $G = \mathrm{Gal}(K^C/\mathbb{Q})$, inside the $\mathbb{Z}$-module spanned by the $2n$ embeddings of K into $\mathbb{C}$. If $t(A) = n + 1$, A is said to be nondegenerate. If $t(A) = t(\Phi) < n + 1$ and A is simple, then A is said to be degenerate. The groups, G, are transitive permutation groups of degree $2n$ with even order center, of which there are $19,126$ in degree $2n = 24$. To grasp this problem we look at ρ-minimal transitive permutation groups and minimally transitive permutation groups with even order center. A ρ-minimal group, G, of degree $2n$ is a group with a central order 2 element, ρ, such that $G =< \rho > \times M$, where M is a minimally transitive permutation group of degree $2n$, and G has no proper transitive subgroup with a central order 2 element. In this talk I will discuss their construction in degree 24 and give the ranks of types for these groups and for minimal groups with even order centers. (Received September 16, 2016)