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Yun Lu*, Mathematics Department, Kutztown University of PA, Kutztown, PA 19530. *Reducts of the Generalized Random Bipartite Graph*. Preliminary report.

Let Γ be the generalized random bipartite graph that has two sides R_l and R_r with edges for every pair of vertices between R_l and R_r but no edges within each side, where all the edges are randomly colored by three colors P_1 , P_2 , and P_3 . In this talk, we investigate the reducts of Γ that preserve R_l and R_r , and classify the closed permutation subgroups in $Sym(R_l) \times Sym(R_r)$ containing the group $Aut(\Gamma)$. Our results rely on a combinatorial theorem of Nešetřil-Röd and the strong finite submodel property of the generalized random bipartite graph. (Received September 24, 2012)