

1116-20-1920

Thomas W Tucker* (ttucker@colgate.edu), Math Dept, Colgate University, Hamilton, NY 13346, and **Marston D.E. Conder** (m.conder@auckland.ac.nz) and **Mark E Watkins** (mewatkin@syr.edu). *Graphical Frobenius Representations with even complements*. Preliminary report.

A Frobenius group is a transitive, but not regular, permutation group G such that the only element fixing two points is the identity. By a theorem of Frobenius, we can write $G = HK$ where H is a point stabilizer and K is a normal, regular subgroup; K is called the *kernel* and H the *complement*. When $|H|$ is even, then K is abelian of odd order.. A graphical Frobenius representation for $G = HK$ is a Cayley graph for K with point stabilizer H . Determining which Frobenius groups have a GFR is a natural generalization of the classical graphical regular representation (GRR) problem. We are interested in the case where $|H|$ is even and at least 4. (Received September 21, 2015)