

C_z frames of $M(b, n)$, where z is even

M. Tieyemer, D. Prier, Chandra Dinavahi*

Department of Mathematics, The University of Findlay, Findlay, OH 45840
dinavahi@findlay.edu

Let $M(b, n)$ be the complete multipartite graph with b parts B_0, \dots, B_{b-1} of size n . A z -cycle system of $M(b, n)$ is said to be a C_z -frame if the z -cycles can be partitioned into sets S_1, \dots, S_k such that for $1 \leq j \leq k$, where S_j induces a 2-factor of $M(b, n) - B_i$ for some $i \in Z_b$. The existence of a C_z -frame of $M(b, n)$ has been settled when $z \in \{3, 4, 5, 6\}$. Here, we consider C_z -frames when $z \geq 8$ is even.