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Guven Yuceturk* (yucetgu@auburn.edu), 221 Parker Hall, Auburn University, Auburn, AL 36849, and Hoffman G. Dean (hoffmdg@auburn.edu), 133C Allison Lab, Auburn University, Auburn, AL 36849. Gregarious Path Decompositions of Some Graphs.

Let G be a simple graph and f(v) a positive integer for each vertex v of G. Form G^f by replacing each v by a set F(v) of f(v) vertices, and each edge uv by complete bipartite graph on bipartition (F(u), F(v)). Can we partition G^f into paths of length 2 which are gregarious, that is, meet three different F(u)'s?

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