

Sabbatical leave report
MICHIGAN TECHNOLOGICAL UNIVERSITY

Name: Donald L. Kreher

Academic rank or title: Professor

Academic organization unit: Mathematical Sciences

I spent the entire of my Sabbatical January 01, 2005 to Ending: May 01, 2005 at the University of Regina, in Regina, Saskatchewan. I focused on the solving the 1982 conjecture

Every circulant graph with m edges has a k -isofactorization whenever k divides m .

My host and collaborator Brian Alspach, is the foremost expert on this problem. Together with D. Dyer we were able to make substantial progress. Our subsequent paper

B. Alspach, D. Dyer, D.L. Kreher, On Isomorphic Factorizations of Circulant Graphs

has been well received by the community and is to appear in the *Journal of Combinatorial Design* a premiere journal. Returning to MTU I started a working seminar on this problem and have several interested graduate student and colleagues. I expect at least a Master thesis to result and possibly a P.h.D thesis.

Donald L. Kreher