
BARBARA MAENHAUT, The University of Queensland
Alspach's Cycle Decomposition Problem for Multigraphs

Alspach's cycle decomposition problem is to determine for each n , the set of all lists m_1, m_2, \dots, m_t such that there exists a decomposition of the complete graph of order n into t edge-disjoint cycles of lengths m_1, m_2, \dots, m_t . A brief history of progress on this problem will be presented, culminating in its recent solution by Bryant, Horsley and Pettersson. The natural generalisation of this problem to cycle decompositions of the complete multigraph has also recently been solved and in this talk I will outline that solution. This is joint work with Darryn Bryant, Daniel Horsley and Ben Smith.