1056-05-1999   **Erik E Westlund*** (`eewestlu@mtu.edu`), Department of Mathematical Sciences, Michigan
Technological University, 1400 Townsend Drive, Houghton, MI 49931. *The Hamiltonian
decomposition problem for Cayley graphs on abelian groups.*

Alspach conjectured that every $2k$-regular connected Cayley graph on a finite abelian group A with connection set $S = \{s_1, \ldots, s_k\}$ has a hamiltonian decomposition. In 2009, the conjecture was proved for 6-regular graphs of odd order. This talk discusses techniques used to generalize this result for even order graphs. (Received September 22, 2009)