

## The Stars and Stripes Problem

Donald L. Kreher, *Michigan Technological University*

If  $X$  is a connected graph, then an  $X$ -factor of a larger graph is a spanning subgraph in which all of its components are isomorphic to  $X$ . An  $n$ -star factor is an  $X$ -factor, where  $X = K_{1,n}$ . The *Stars and Stripes problem* is to determine the quadruples  $(v, n, r, s)$  for which the complete graph of order  $v$  can be edge decomposed into  $r$  ( $n$ -star)-factors and  $s$  one-factors (stripes). We concentrate on  $n = 4$ .

This is joint work with Zazil Santizo Huerta, Melissa S. Keranen, Salvatore Milici