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Resolution of the directed Oberwolfach problem with cycles of equal length

A $\vec{C}_m$-factor of a digraph is a spanning subdigraph comprised of disjoint directed cycles of length m and a $\vec{C}_m$-factorization is a decomposition into $\vec{C}_m$-factors. It has been conjectured that $K^*_{\alpha m}$ admits a $\vec{C}_m$-factorization if and only if $(\alpha, m) \notin \{(1,4),(1,6),(2,3)\}$. This problem is known as the directed Oberwolfach problem with cycles of equal length. In this talk, we present a solution to the last outstanding case; that is, we show that K^*_{2m} admits a $\vec{C}_m$-factorization for all odd $m \geqslant 11$.