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Skolem-type Difference Sets for Cycle Systems.

In this talk, cyclic m -cycle systems of order v are constructed for all $m \geq 3$, and all $v \equiv 1 \pmod{2m}$. Although this result has been settled previously by several authors, in this talk, we provide a different solution, as a consequence of a more general result, which handles all cases using similar methods. We also construct cyclic m -cycle systems of $K_v - I$, the complete graph of order v with a 1-factor I removed, for all $m \geq 3$, and all $v \equiv 2 \pmod{2m}$. (Received July 22, 2008)