## k-diskcyclic operators on Banach spaces

## ABSTRACT

In this paper, we define and study new classes of operators on complex Banach spaces, which we call k-diskcyclic. We use these operators to show that the direct sum of a diskcyclic operator with it self k times ( $k \times 2$ ) does not need to be diskcyclic. However, we show that under certain conditions the latter statement holds true. In particular, we show that an operator T satisfies the diskcyclic criterion if and only if T is k-diskcyclic.

Keyword: Banach spaces; k-diskcyclic