

# On the closure of the discrete spectrum of compactly perturbed operators on Banach space

Franz Hanauska

## Abstract

Let  $L_0$  be a bounded operator on a Banach space  $X$  with purely essential spectrum and  $K$  a compact operator on  $X$ . Using methods of complex analysis we study the set of accumulation points of the discrete spectrum of the operator  $L := L_0 + K$ . We formulate conditions for  $L$  to exclude certain points or subsets of the essential spectrum of  $L$  to be accumulation points of the discrete spectrum.