

Abstract

The concept of essential numerical range of an operator was defined and studied by Stamp i and Williams in 1972. Researchers generalised this idea of essential numerical range to a group of operators to the joint essential numerical range. In this paper, we consider the jointessential numerical range and show that the properties of the classical numerical range such as compactness also hold for the joint essential numerical range. Further, we show that the joint essential spectrum is contained in the joint essential numerical range by looking at the boundary of the joint essential spectrum.