



Pietro AIENA (paiena@unipa.it), Department of Mathematics, University of Palermo, 90123 Palermo, Italy, *Local spectral theory and Fredholm theory*.

ABSTRACT. The *single valued extension property* (SVEP) has a basic importance in local spectral theory since is fulfilled by a wide variety of linear bounded operators of complex Banach spaces. In fact all decomposable operators have SVEP, while examples of non-decomposable operators which have SVEP may be found among the class all multipliers of semi-prime Banach algebras.

We shall describe a localized version of this property and will give several equivalent conditions to the SVEP at a point $\lambda_0 \in$. These equivalences also show how deeply Fredholm theory and local spectral theory interact. In fact many classical facts of Fredholm theory may be explained in terms of SVEP.

We also show that many classical results for normal operators acting in Hilbert spaces, relative to some spectra originating from the Fredholm theory, may be extended to decomposable operators.