ON THE SPECTRUM OF A MORPHISM OF QUOTIENT HILBERT SPACES

Sorin Nădăban

Abstract. In this paper we define the notion of spectrum for a morphism of quotient Hilbert spaces. The definition is the same with the one given by L.Waelbroeck but the proofs that the spectrum is a compact and nonempty set are different. In this context we also make some remarks concerning the resolvent function and the spectral radius.

Full text

References

[1] M.Akkar; H.Arroub, *Calcul fonctionnel harmonique dans une algebre de Banach involutive quotient*, Bull. Belg. Math. Soc **3**, No. 5 (1996), 521-535. MR1425280 (97k:46054). Zbl 0873.46027.

[2] A. Terescenco, F. Turcu, S. Nădăban, *A definition of the adjoint between quotient Hilbert spaces*, talk at the 17th International Conference of Operator Theory, Timişoara, 1998.

[3] F.-H.Vasilescu, *Spectral Theory in Quotient Fr´echet Spaces I*, Revue Roumaine Mathematique Pures Applique, **32**(1987), 561-579. MR0900363 (88h:47004). Zbl 0665.46058.

[4] L.Waelbroeck, *Quotient Banach Spaces*, Banach Center Publications, Vol.8, Warszaw, (1982), 553-562. MR0738315 (85m:46072a). Zbl 0492.46013.

[5] L.Waelbroeck, *The Taylor Spectrum and Quotient Banach Spaces*, Banach Center Publications, Vol.8, Warszaw, (1982), 573-578. MR0738317 (85m:46072c). Zbl 0492.46014.

[6] L.Waelbroeck, *Holomorfic Functional Calculus and Quotient Banach Algebra*, Studia Math., **75**(1983), 273-286. MR0722252 (85j:46088a). Zbl 0492.46039.

Sorin Nădăban

Department of Mathematics, Faculty of Exact Sciences,

University "Aurel Vlaicu" of Arad, Romania.

e-mail: snadaban@gmail.com