

(1966)) and the Weak Spectral Mapping Theorem 7.2 must have been known to him. The direct proof of the Weak Spectral Mapping Theorem 7.4 for polynomially bounded groups seems to be new. The result can also be deduced from the theory of spectral subspaces of group representations (see, e.g., Combes-Delaroché (1978)), since the Arveson spectrum of a strongly continuous one-parameter group can be identified with the spectrum of the generator (see Evans (1976)). The final part of this section is taken from Greiner (1985) and yields a new approach to Gearhart's characterization of the spectrum of semigroups on Hilbert spaces [Gearhart (1978)]. Different proofs can be found in Herbst (1983), Howland (1984) and PrÜß (1984).