

SOME ABSOLUTELY CONTINUOUS REPRESENTATIONS OF FUNCTION ALGEBRAS

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Abstract. In this paper we study some absolutely continuous representations of function algebras, which are weak ρ -spectral in the sense of [5] and [6], for a scalar $\rho > 0$. Precisely we investigate certain conditions for the existence of a spectral ρ -dilation of such representation. Among others we obtain different results which generalize the corresponding theorems of D. Gaşpar [3].

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References

- [1] T. Gamelin, *Uniform Algebras*, Prentice-Hall, Englewood Cliffs, New Jersey, 1969. [MR0410387](#)(53 #14137). [Zbl 0213.40401](#).
- [2] D. Gaşpar, *Spectral ρ -dilation for the representation of function algebras*, Anal. Univ. Timişoara, ser. st. mat. **3** (1970), 153-157. [MR0326400](#)(48 #4744). [Zbl 0288.46048](#).
- [3] D. Gaşpar, *On absolutely continuous representations of function algebras*, Rev. Roum. Math. Pure et Appl. **XVII**, 1 (1972), 21-31. [MR0303298](#)(46 #2436). [Zbl 0241.46054](#).
- [4] I. Glicksberg, The abstract F. and M. Riesz theorem, J. Functional Anal., 1 (1967), 109-122. [MR0211264](#)(35 #2146). [Zbl 0155.18503](#).
- [5] A. Juratoni and N. Suciu, *Spectral ρ -dilations for some representations of uniform algebra*, Proceedings of 9th National Conference of the Roumanian Mathematical Society, Ed. Univ. Vest, 194-210.
- [6] A. Juratoni, *On the weak ρ -spectral representations of function algebras*, to appear in Proc. of the 11th Symp. of Math. and Appl.

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- [7] T. Nakazi, *ρ dilations and hypo-Dirichlet algebras*, Acta Sci. Math. (Szeged), **56** (1992), 175-181. [MR1204751](#)(94b:47010). Zbl 0803.46061.
- [8] T. Nakazi, *Some special bounded homomorphism of uniform algebras and dilations*, Department of Mathematics, Hokkaido University, Sapporo 060, Japan, preprint, 1992, 1-9.
- [9] I. Suciu, *Function Algebras*, Noordhoff Intern. Publ. Leyden, The Netherlands, 1975. [MR0370199](#)(51 #6428).
- [10] T.P. Srinivasan and Ju-Kwei Wang, *Weak* Dirichlet algebras*, Function Algebras, Scott, Foresman and Co, 1966, 216-249. [MR0198282](#)(33 #6441).

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