

HARMONIC ANALYSIS BASED ON CERTAIN COMMUTATIVE BANACH ALGEBRAS

BY

YNGVE DOMAR

in Uppsala

Contents

	Page
Introduction	2
<i>Chapter I. A class of commutative Banach algebras.</i>	
1.1. Main assumptions and definitions	4
1.2. Some lemmas concerning the subclasses F_0 and F'	6
1.3. Linear functionals on F	9
1.4. Complex-valued homomorphisms of F	10
1.5. The space of regular maximal ideals	14
<i>Chapter II. Special algebras and special elements.</i>	
2.1. Various examples of Banach algebras F	17
2.2. Proof of theorem 2.11.	20
2.3. The class Φ	25
<i>Chapter III. The spaces A and the spectrum.</i>	
3.1. The spaces A	28
3.2. Definition and main properties of the spectrum	31
3.3. Theorems on iterated transformations	35
3.4. Elements with one-point spectrum	40
<i>Chapter IV. An equivalent definition of the spectrum.</i>	
4.1. Elements in A with approximate identities. The subspace A_1	47
4.2. Some lemmas.	51
4.3. The spectral sets Λ'_a and Λ''_a	55
4.4. The narrow topology	62
Bibliography	66