

*Erratum: Some Problems in the Spectral  
Theory of Stationary Processes on  $\mathbf{R}^d$ ,  
Vol. 23 (1973), 343–365*

LOREN D. PITT

The remark concerning part (ii) of Lemma 4.4 on page 354 of this paper is false. This error, though minor, was multiplied later in the paper and led to a false statement in Proposition 4.6.c and a false proof of the true Theorem 7.3. Here we will indicate the necessary corrections and at the same time obtain a stronger result than Theorem 7.3.

When  $\Delta_1$  and  $\Delta_2$  are only assumed weakly related, the proof given of Lemma 4.4 (i) breaks down at the end when we claim  $\phi_n f \in H_1(T_\delta)$ . This is in general false. Fortunately, two special cases for which the containment  $\phi_n f \in H_1(T_\delta)$  is immediate are sufficient for our applications. These are when

- (1)  $T$  is compact or
- (2)  $\phi_n^2(x) \Delta_1(dx) \leq C_n \Delta_2(dx)$  for some constants  $C_n$ .

The conclusion  $H_2(S \cap T) = H_2(S) \cap H_2(T)$  in Lemma 4.4 is valid if either (1) or (2) is satisfied, and Proposition 4.6.c may be corrected by assuming either that  $T$  is compact or that the relating sequence  $\phi_n(x)$  constructed in the proof of the proposition satisfies  $\phi_n^2(x) dx \leq C_n \Delta(dx)$ . This last case is applicable in the proof of Theorem 7.3, but requires an additional argument.

**Proposition.** *Let  $f(x)$  be an entire function of exponential type satisfying*

$$(3) \quad \int_1^\infty s^{-2} \log \omega(s) ds < \infty$$

where

$$(4) \quad \omega(s) = \sup \left\{ \int_{|x-y| < 1} |f(y)| dy : |x| \leq s + 1 \right\}.$$

Then there exists a sequence  $\{\phi_n(x)\}$  of entire functions satisfying conditions a), b) and c) of Definition 4.1 and for which

$$(5) \quad \phi_n^2(x)f(x) \text{ is bounded on } \mathbf{R}^d.$$