

and  $\lim_i V(y, E_i) > 0$ . Since  $S$  is a sigma algebra,  $E = \bigcap E_i \in S$ ; moreover,  $V(x, E) \leq \lim_i V(x, E_i) = 0$ . Finally, since  $y$  is countably additive on  $S$ ,  $V(y, E) = \lim_i V(y, E_i) > 0$ .

BIBLIOGRAPHY

1. R. H. Cameron, *A family of integrals serving to connect the Wiener and Feynman integrals*, J. Math. and Phys. **39** (1960), 126-140.
2. R. B. Darst, *A decomposition of finitely additive set functions*, J. Math. Reine Angew. **210** (1962), 31-37.

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ERRATA TO VOLUME 98

C. C. Elgot. *Decision problems of finite automata design and related arithmetics*

Page 23, Lines 10, 11. Replace each  $\hat{f}$  by  $\hat{p}$ .

Page 23, 3.6(b), Line 2. The words "by a finite number . . ." should start a new line.

Page 24, Line 9 (second display formula). Replace "(a, b)" by "(b, a)".

Page 46, 8.6.2, Line 5. Replace "let  $n$  be the maximum" by "let  $n$  be one more than the maximum".

Line 7. Replace "for some  $n$ -ary  $R$ " by "for some  $R$  which is  $n$ -ary".

The third sentence (beginning on the sixth line) of §8.6.2 on page 46 is in error but is readily correctable. "It may be seen that  $T_{m+m'+r}^\infty(\Lambda_x M) = S_1 \cup S_2 \cup \dots \cup S_k$ , where  $S_j, j=1, 2, \dots, k$ , is the set of all infinite  $R_j$ -sequences  $f$  such that  $(f \upharpoonright n) \in E_j$ , for appropriate  $R_j, E_j$ , and that  $k$  need not be 1. For example, let  $M$  be

$$0 \in F_1 \wedge 0 \notin F_2 \wedge (x \in F_1 \wedge x \notin F_2 \cdot V \cdot x \in F_1 \wedge x \in F_2) : V :$$

$$0 \notin F_1 \wedge 0 \in F_2 \wedge (x \in F_1 \wedge x \in F_2 \cdot V \cdot x \notin F_1 \wedge x \in F_2).$$

Then  $T_2^\infty(\Lambda_x M)$  is the union of the set of all infinite sequences in  $\langle 1, 0 \rangle$  and  $\langle 1, 1 \rangle$  which begin with  $\langle 1, 0 \rangle$  and the set of all infinite sequences in  $\langle 0, 1 \rangle$  and  $\langle 1, 1 \rangle$  which begin with  $\langle 0, 1 \rangle$ . Thus, in this case,  $k=2$ . Let  $Q$  be

$$(0 \in F_1 \wedge 0 \notin F_2 \cdot V \cdot 0 \notin F_1 \wedge 0 \in F_2)$$

$$: \Lambda : (x \in F_1 \wedge x \notin F_2 \wedge x \in F_3 \wedge x' \in F_3 \cdot V \cdot x \in F_1 \wedge x \in F_2 \wedge x \in F_3 \wedge x' \in F_3$$

$$\cdot V \cdot x \in F_1 \wedge x \in F_2 \wedge x \notin F_3 \wedge x' \in F_3 \cdot V \cdot x \notin F_1 \wedge x \in F_2 \wedge x \notin F_3 \wedge x' \notin F_3).$$

Then  $\Lambda_x M \equiv V_{F_3} \Lambda_x Q$  and  $T_3^\infty \Lambda_x Q$  is a set of  $R$ -sequences, for the binary  $R$  indicated by the formula, beginning in a designated way and  $T_2^\infty(\Lambda_x M)$  is a projection of  $T_3^\infty(\Lambda_x Q)$ . Quite generally it is the case that  $S_1 \cup S_2 \cup \dots \cup S_k$  is the projection of a set of  $R$ -sequences beginning in a designated way so

that the rest of the argument given may be applied. In particular, if the  $R_j$ 's are  $r$ -ary relations,  $r \geq 2$ ,  $R$  may be taken as  $R_1' \vee R_2' \vee \dots \vee R_k'$ , where the field of  $R_j'$  is taken as the cartesian product of the field of  $R_j$  with singleton  $j$  and  $\langle a, j \rangle R_j' \langle b, j \rangle \equiv a R_j b$ . We define  $E_j'$  analogously:  $u' \in E_j' \equiv u \in E_j$  where  $u'(x) = \langle u(x), j \rangle$  for each  $x$ . Let  $E = E_1' \cup E_2' \cup \dots \cup E_k'$ ; let  $p(\langle a, j \rangle) = a$  for all  $a, j$  and let  $S$  be the set of  $R$ -sequences  $f$  such that  $(f \upharpoonright n) \in E$ . Then  $\hat{p}(S) = S_1 \cup S_2 \cup \dots \cup S_k$ ."

### ERRATA TO VOLUME 101

N. R. Stanley, *Some new analytical techniques and their application to irregular cases for the third order ordinary linear boundary-value problem*, pp. 351-376.

Page 363, Line 18. Replace "zeros of  $\Delta$ " by "zeros of  $\Delta(\lambda)$ "

Errata to this paper were printed in vol. 102, March 1962, p. 545. Two of the items were incorrectly stated. The correct versions are:

Page 354, Line 13. Replace " $a_{i+1} = 0$  and" by " $a_{i+1} = 0$ , and"

Page 364, Line 19. Replace " $c \in$ " by " $c \ni$ ". Last two lines and Page 365, Line 1. Replace from "where  $|\operatorname{Re} \theta| \dots$ " through "Therefore," by "where  $n$  is a positive integer and hence  $|\operatorname{Re} \theta| \leq \pi/2$  without loss of generality. Thus,  $\pm(-1)^{n-1} \sin \theta = \psi$ . When  $n$  corresponds to  $z \ni |\psi| < 1$ , then  $|\operatorname{Re} \theta| < \pi/2$ . Therefore,"