measure obtained by using μ on each axis. The problem is, for a given class C of measures μ, what can be said about the existence and structure of sets of points in the k-space which have the property that their "power" measure is the same for all measures μ in C? Necessary conditions and sufficient conditions for sets to have the above property are found for certain large classes C of statistical interest. (Received July 24, 1943.)

TOPOLOGY

240. H. D. Huskey: *On polyhedra and polyhedral path surfaces.*

In the study of surfaces in parametric form there are several definitions of polyhedra or of polyhedral path surfaces in common use. The equivalence of these definitions is discussed in this paper. A single polyhedral path surface may have several representations; the paper goes on to show directly that the area of a polyhedral path surface is independent of the representation (this result follows indirectly from results in the literature, see T. Radó: *On the semicontinuity of double integrals in parametric form*, Trans. Amer. Math. Soc. vol. 51 (1942) pp. 336–361). Finally it is shown that the Lebesgue area of a surface is independent of the type of polyhedra used in the definition. (Received July 16, 1943.)

241. A. D. Wallace: *A structural property of transformations.*

Let M and N be compact connected Hausdorff spaces and let $f(M)=N$ be continuous. Suppose further that f satisfies the condition: If $M=A+B$ where A and B are closed and $A \cdot B$ is a point, then for any continuum K in M it is true that $f(K \cdot A) = f(K)\ f(A)$. The following results have been obtained: (1) If E is a prime-chain in N there exists a unique prime-chain F in M such that E is contained in $f(F)$ and (2) If X is a chain in M then $f(X)$ is a chain in N. For f non-alternating and metric M and N the above results are due respectively to G. T. Whyburn and G. E. Schweigert. If f is non-alternating then the above condition on f holds, but not conversely. Indeed f may be completely alternating. (Received July 28, 1943.)

242. Paul White: *On r-regular convergence.*

In this paper the notion of regular convergence as introduced by G. T. Whyburn (Fund. Math. vol. 25 (1935) is further studied. It is shown that a sequence of irreducible membranes of homologies or of irreducible carriers of r-dimensional cycles has as its limit under s-regular convergence ($s \leqq r$) a set of the same type. Finally it is shown that under this type of convergence a sequence of r-dimensional closed Cantorian manifolds converges to another r-dimensional closed Cantorian manifold. (Received July 2, 1943.)