248. W. H. Gottschalk: *Topological characterizations of almost periodicity.*

The author generalizes previous results of his (see *Orbit-closure decompositions and almost periodic properties*, Bull. Amer. Math. Soc. vol. 50 (1944) pp. 915–919) to include nonmetric spaces and to include homeomorphisms, mappings, one-parameter transformation groups and one-parameter semi-groups. It is noted that an almost periodic function may be considered as an almost periodic point in a function space. Bochner's characterization of almost periodicity is extended to the cases of a homeomorphism and a one-parameter group in a uniform space. Several uses of these theorems are made to obtain further results. (Received August 8, 1945.)

249. William Gustin: *Countable connected spaces.*

Let $\mathfrak{S}$ be the class of all countable and connected perfectly separable Hausdorff spaces containing more than one point. Urysohn, using a complicated identification of points, has constructed an $\mathfrak{S}$ space (Math. Ann. vol. 94 (1925) pp. 274–283). Two $\mathfrak{S}$ spaces, X and X^*, more simply constructed and not involving identifications, will be presented. The space X^* is a connected subspace of X and contains a dispersion point; that is, the subspace formed from X^* by removing this one point is totally disconnected. (Received July 17, 1945.)

250. Deane Montgomery: *Measure preserving homeomorphisms.*

Kerékjártó has obtained interesting results on a class of transformations which he named similitudes (C. R. Acad. Sci. Paris vol. 198 (1934) pp. 1345–1347). By modifying his method one can obtain certain results about the structure of measure preserving homeomorphisms in the vicinity of fixed points. It is shown that there must be arbitrarily small (but not degenerate) continua containing the fixed point and going into themselves under the transformation. This implies that there are points near the fixed point which remain near under positive iteration. (Received August 10, 1945.)

251. Deane Montgomery and Hans Samelson: *Fiberings with singularities.*

A mapping P of a polyhedron R onto a polyhedron B is called a singular fiber mapping if (1) P is open, (2) P is topological on a closed subset L of R, and (3) P is a fiber mapping (in the sense of Hurewicz-Steenrod) of the complement of L. The points of L are the singularities. It is proved that a (differentiable) singular fibering of an n-sphere cannot have exactly one singular point, and that, if the fiber has characteristic 0 and the singular points are finite in number, there are exactly 0 or 2, depending on the parity of n. (Received August 27, 1945.)

NEW PUBLICATIONS

GALLAND, J. S. An historical and analytical bibliography of the literature of cryptology. (Northwestern University Studies in the Humanities, no. 10.) Evanston, Northwestern University, 1945. 8+209 pp. $5.00.

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