215. Mr. Garrett Birkhoff: *On the automorphisms of groups of prime-power order.*

The "commutator-power" subgroup-structure of an arbitrary group P of prime-power order is shown to have an exact parallel in the group of the automorphisms of P. (Received May 9, 1934.)

216. Professor J. H. Roberts: *Sets which are potentially regular relative to a collection of subsets.*

In the present paper the following theorem is proved: Suppose the separable metric space M is potentially regular relative to a collection Z of self-compact subsets of M. Then there exists a biunivalued and continuous transformation T of M into a separable metric space M^* such that (1) if the point P of M is of potential order n relative to Z then for each $e>0$ there is in M^* a domain U containing $T(p)$ and of diameter $<e$, such that the boundary of U is a subset of the sum of the images of n elements of Z, and (2) if every element of Z is the sum of a finite number of connected sets then the property of a compact subset of M to separate two points of M is invariant under T. We have as corollaries a theorem by G. T. Whyburn and one by the author. The notion, *potentially regular relative to Z*, is due to Whyburn. (Received May 9, 1934.)

217. Dr. R. H. Cameron (National Research Fellow): *Linear differential equations with almost periodic coefficients.*

This paper gives various sets of necessary and sufficient conditions that a system (which may or may not be homogeneous) of linear differential equations with almost periodic coefficients should have all of its solutions almost periodic. It also gives sufficient conditions that a given particular solution should be almost periodic; and it can be shown by an example that these conditions are sufficiently weak so that they do not imply that all the solutions be almost periodic. (Received May 12, 1934.)

218. Mr. Garrett Birkhoff: *Transfinite extensions of the Jordan-Hölder theorem.*

The theorem of Jordan-Hölder can be extended to chief and characteristic series which are well-ordered in the direction of increasing subgroups. But there exists an enumerable Abelian group having chief series well-ordered in the direction of decreasing subgroups which do not satisfy this theorem. (Received May 7, 1934.)

ERRATUM

Volume 40, page 234, abstract No. 190 (by Dr. Gordon Pall): the formula in line 10, which was printed as $o_i \equiv o_{i+1} \equiv 0 \pmod{16}$, should read $o_i \equiv o_{i+1} \equiv 0 \pmod{4}$.