

THE FEBRUARY MEETING IN NEW YORK

The five hundred twenty-second meeting of the American Mathematical Society was held at Hunter College in New York City on Saturday, February 25, 1956. The meeting was attended by about 325 persons including 286 members of the Society.

By invitation of the Committee to Select Hour Speakers for Eastern Sectional Meetings Professor Everett Pitcher of Lehigh University delivered an address entitled *Inequalities of critical point theory* at a general session presided over by Professor R. E. Langer. Sessions for contributed papers were held in the morning and afternoon, presided over by Professors J. H. Barrett, A. A. Bennett, R. H. Bing, G. K. Kalisch, D. E. Kibbey, and C. H. W. Sedgewick.

Abstracts of the papers presented follow. Those having the letter "t" after their numbers were read by title. Where a paper has more than one author, the paper was presented by that author whose name is followed by "(p)". Dr. Banaschewski was introduced by Professor D. B. Sumner, Drs. Bremermann and Huckemann and Miss Weiss by Professor R. D. Schafer, Mr. Friedberg by Dr. Hartley Rogers, Jr., Professor Kalish and Dr. Montague by Professor Alfred Horn, Professor Kreyszig and Dr. Nitsche by Professor Stefan Bergman, Dr. Laugwitz by Professor E. R. Lorch, and Mr. Robinson by Professor R. F. Rinehart.

ALGEBRA AND THEORY OF NUMBERS

283t. R. M. Baer: *Certain homomorphisms of partially ordered sets.*

It is well known that for an arbitrary partially ordered set X there exists a chain C and a homomorphism σ which carries X onto C . [Tarski, Kuratowski, Szpilrajn.] The authors call a homomorphism of X onto C *thorough* with respect to a collection of chains (D_α) in X if the homomorphism maps every chain D_α onto C . In terms of a notion of *gap* in a partially ordered set X , those $(X, (D_\alpha))$ are characterized for which, given C , there exists a homomorphism which is thorough with respect to a nonempty collection of maximal chains in X and which maps X onto C . (Received January 13, 1956.)

284. D. W. Blackett: *Simple near-rings of differentiable transformations.*

This paper examines simple near-rings of transformations of a finite dimensional real vector space V into itself. The particular transformations considered have the origin θ as a fixed point and are continuously differentiable at θ . A simple near-ring N of such transformations is faithfully represented as a ring of linear transformations by restriction to the invariant subspace of V generated by the images of a fixed vector not annihilated by N . This statement must be modified by the restriction that at