THE APRIL MEETING IN STANFORD

The five hundred fourteenth meeting of the American Mathematical Society was held at Stanford University, California, on Saturday, April 30. Attendance was approximately 100 including 86 members of the Society.

By invitation of the Committee to Select Hour Speakers for Far Western Sectional Meetings, Professor Irving Kaplansky of the University of Chicago and the University of California, Los Angeles delivered an address entitled *Operator algebras*. Professor Kaplansky was introduced by Professor J. L. Kelley. There were two sessions for contributed papers, over which Professors M. M. Schiffer and Randolph Church presided.

After the meetings, those attending were entertained at tea by the Stanford Department of Mathematics at the Stanford Alumni Hall.

Abstracts of papers presented at the meeting follow. The name of a paper presented by title is followed by "*t*." In the case of joint authorship, the name of the person presenting the paper is followed by (p).

Algebra and Theory of Numbers

579. Chen-Chung Chang: *A necessary and sufficient condition for an α-complete Boolean algebra to be an α-homomorphic image of an α-complete field of sets.*

Let α be any infinite cardinal. An α-complete Boolean algebra A is *α-representable* if it is an α-homomorphic image of an α-complete field of sets. For every $x\in A$, x has the property P_α, $P_\alpha(x)$, iff there exists a doubly indexed system of elements $\{a_{i,j}\}$, $i\in I, j\in J$, $\bar{\bar{I}}\leqq\alpha$, $\bar{\bar{J}}\leqq\alpha$, such that (1) $\prod_{j\in J}a_{i,j}=0$ for each $i\in I$, and (2) for every function f on I to J the set of elements $\{a_{i,f(i)}; i\in I\}$ either contains x or contains a complementary pair. Let $I(\alpha, A)=\{x; x\in A \text{ and } P_\alpha(x)\}$. Theorems I–III below hold for α-complete Boolean algebras A. I. $I(\alpha, A)$ is an α-complete ideal in A and $A/I(\alpha, A)$ is α-representable. II. A is α-representable if, and only if, $I(\alpha, A)=\{0\}$. III. If J is any α-complete ideal in A, then A/J is α-representable if, and only if, $I(\alpha, A)\subseteq J$. IV. $I(\aleph_0, A)=\{0\}$ for any Boolean algebra A. II and IV immediately imply Loomis' result on representation of σ-complete Boolean algebras (Bull. Amer. Math. Soc. vol. 53 (1947) pp. 757–760). It follows from I–IV that the ideal $I(\alpha, A)$ may be regarded as the α-radical of the Boolean algebra A with respect to α-representation. It is known that there exist α-complete Boolean algebras A which are not α-representable (cf. Sikorski, Fund. Math. vol. 43 (1948) p. 247). Consequently, for these special algebras $I(\alpha, A)\neq\{0\}$. (Received March 7, 1955.)

580*t*. L. A. Kokoris: *Power-associative rings of characteristic two.*

It is proved that a commutative ring A whose characteristic is 2 is power-associative if $(x^2y)y=(y^2x)x$ and $x^{2^{n-1}}x^{2^{n-1}}=x^{2^n}$ for every x, y in A and every positive integer