

## THE MAY MEETING IN FRESNO

The four hundred eighty-first meeting of the American Mathematical Society was held at Fresno State College, Fresno, California, on Saturday, May 3, 1952. Approximately 75 persons attended, including the following 59 members of the Society:

H. L. Alder, H. M. Bacon, W. G. Bade, A. K. Bell, L. D. Berkovitz, E. W. Beth, F. C. Biesele, W. W. Bledsoe, L. M. Blumenthal, F. H. Brownell, J. G. van der Corput, P. H. Daus, Douglas Derry, D. J. Ewy, F. D. Faulkner, G. E. Forsythe, N. S. Free, R. M. Hayes, M. R. Hestenes, P. G. Hodge, P. J. Kelly, L. D. Kovach, Cornelius Lanczos, B. J. Lockhart, Charles Loewner, M. W. Maxfield, L. F. Meyers, E. D. Miller, F. R. Morris, T. S. Motzkin, Ivan Niven, L. J. Paige, T. K. Pan, R. S. Phillips, D. H. Potts, W. T. Puckett, F. M. Pulliam, C. H. Rawlins, Jr., R. M. Redheffer, J. B. Robinson, R. M. Robinson, Leo Sario, M. M. Schiffer, I. J. Schoenberg, Abraham Seidenberg, R. G. Selfridge, M. A. Shader, Max Shiffman, W. H. Simons, T. H. Southard, M. L. Stein, Robert Steinberg, C. B. Tompkins, J. L. Ullman, W. R. Wasow, M. A. Weber, František Wolf, H. H. Wolfenden, F. H. Young.

By invitation of the Committee to Select Hour Speakers for Far Western Sectional Meetings, Professor I. J. Schoenberg, of the Institute for Numerical Analysis, National Bureau of Standards, Los Angeles, delivered an address entitled *On smoothing operations and related topics*. Professor Schoenberg was introduced by Professor Ivan Niven. There were sessions for contributed papers in the morning and afternoon, presided over by Professors F. R. Morris, H. M. Bacon, and P. H. Daus. Following the meeting there was a guided tour of Pine Flat Dam, now under construction.

Following are abstracts of papers presented at the meeting. Papers with abstract numbers followed by "i" were presented by title. Paper number 490 was presented by Professor Steinberg, number 498 by Professor Kelly, and number 502 by Dr. Forsythe. Dr. Reid was introduced by Dr. J. W. Odle and Mr. Bennett by Professor F. C. Biesele.

### ALGEBRA AND THEORY OF NUMBERS

#### 473*i*. D. R. Morrison: *Boolean product rings*.

A *Boolean product*  $R \circ B$  is defined for every ring  $R$  and every Boolean ring  $B$ , differing from the *tensor product* in that the left distributive law,  $r \circ (b_1 + b_2) = r \circ b_1 + r \circ b_2$ , holds only if  $b_1 b_2 = 0$  or  $2r = 0$ . Every nonzero element of  $R \circ B$  is uniquely expressible in the form  $\sum_{i=1}^n r_i \circ b_i$ , where  $r_i \neq r_j, i \neq j, b_i \neq 0, b_i b_j = 0$  for  $j \neq i$ . Where they are meaningful, the commutative and associative laws and the distributive laws with respect to weak direct sums apply to the Boolean product operation, and  $GF(2)$  is a unit with respect to the operation. The idempotent Boolean ring  $(R \circ B)^0$