

THE JUNE MEETING IN EUGENE

The four hundred eight-second meeting of the American Mathematical Society was held at the University of Oregon, Eugene, Oregon, on Saturday, June 21, 1952. A total of 173 persons registered for the meeting, including the following 86 members of the Society:

C. B. Allendoerfer, N. C. Ankeny, T. M. Apostol, B. H. Arnold, M. G. Arsove, G. A. Baker, R. W. Ball, C. R. Ballantine, J. P. Ballantine, R. A. Beaumont, R. F. Bell, J. S. Biggerstaff, Z. W. Birnbaum, Gertrude Blanch, R. N. Bradt, J. V. Breakwell, J. L. Brenner, B. W. Brewer, F. H. Brownell, D. G. Chapman, Harold Chatland, Paul Civin, B. H. Colvin, K. L. Cooke, C. M. Cramlet, E. L. Crow, G. B. Dantzig, D. B. Dekker, Douglas Derry, W. J. Dixon, Melvin Dresner, L. A. Dye, E. A. Fay, G. E. Forsythe, J. W. Gaddum, R. S. Gardner, K. S. Ghent, M. A. Girshick, E. G. Goman, C. H. Gordon, F. L. Griffin, Margaret Gurney, S. G. Hacker, M. E. Haller, A. J. Hoffman, V. E. Hoggatt, Mark Kac, J. M. Kingston, M. S. Knebelman, L. M. LeCam, D. H. Lehmer, R. B. Leipnik, J. C. R. Li, A. E. Livingston, Eugene Lukacs, M. W. Maxfield, A. S. Merrill, W. E. Milne, T. S. Motzkin, A. F. Moursund, W. L. Nicholson, O. M. Nikodým, Ivan Niven, A. R. Noble, T. G. Ostrom, D. B. Owen, T. S. Peterson, J. H. Raymond, P. V. Reichelderfer, R. A. Rosenbaum, Herman Rubin, W. G. Scobert, R. G. Selfridge, W. L. Shepherd, Judson C. Smith, Andrew Sobczyk, R. D. Stalley, W. M. Stone, Gabor Szegő, F. H. Tingey, G. E. Uhrich, J. L. Ullman, J. G. Wendel, R. F. Williams, R. J. Wisner, F. H. Young.

By invitation of the Committee to Select Hour Speakers for Far Western Sectional Meetings, Dr. G. E. Forsythe, National Bureau of Standards, Los Angeles, California, delivered an address entitled *Solving linear equations is not trivial*. Dr. Forsythe was introduced by Professor W. E. Milne. There were sessions for contributed papers in the morning and afternoon, presided over by Professors Gabor Szegő, R. A. Beaumont, and R. A. Rosenbaum.

Following are abstracts of papers presented at the meeting. Papers with abstract numbers followed by "t" were presented by title. Paper number 505 was presented by Professor Apostol, number 518 by Dr. Wendel, number 523 by Dr. M. W. Maxfield, number 531 by Professor Civin, and number 556 by Professor Reichelderfer. Dr. J. E. Maxfield was introduced by Dr. M. W. Maxfield and Professor Hostetter by Professor W. T. Puckett.

ALGEBRA AND THEORY OF NUMBERS

505. D. R. Anderson and T. M. Apostol: *The evaluation of Ramanujan's sum and generalizations*.

Ramanujan obtained an expression for the sum $R(n; k)$ of the n th powers of the primitive k th roots of unity in terms of the Möbius function $\mu(n)$, namely, $R(n; k) = \sum_{d|(n, k)} d\mu(k/d)$, where d runs over the divisors of the g.c.d. (n, k) . The authors