## PHYSICS

## Chairman: ROBERT E. WISE, Purdue University, Fort Wayne KONSTANTIN D. KOLITSCHEW, Indiana Central College, was elected chairman for 1967.

## ABSTRACTS

Teaching the Feed-Back Theory, II. O. L. KERN and K. MIYAKAWA, Indiana Institute of Technology.—A consistent method to teach the feedback theory was presented previously, by considering a time lag for a signal to propagate through net-works. A further application of the method on AC circuits is presented.

Suggestive Approach to Unified Theory. K. MIYAKAWA, Indiana Institute of Technology.—Recent disappointment of geometridynamics, or already unified theory by Rainich, Misner, and Wheeler, may tempt us to re-examine the conventional approaches. One approach is suggested to examine the four-dimensional surface divergence term generated by Einstein's  $\lambda$ -transformation. When affine connection has a reducible part which satisfied the  $\lambda$ -transformation and which has a certain form made of a vector field and its derivative, one obtains an appropriate form for the unified field by applying a modified variation method on the action integral.