

**POWER OF ANALYSIS OF VARIANCE TEST PROCEDURES FOR  
CERTAIN INCOMPLETELY SPECIFIED MODELS, I<sup>1</sup>, <sup>2</sup>**

BY HELEN BOZIVICH,<sup>3</sup> T. A. BANCROFT, AND H. O. HARTLEY

*Statistical Laboratory, Iowa State College*

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**1. Introduction.**

1.1 *Description of pooling procedures.* The simplest situation of a pooling procedure for testing hypotheses using analysis of variance procedures may be described as follows: We are given three mean squares,  $V_1$ ,  $V_2$ ,  $V_3$ , based on  $n_1$ ,  $n_2$ , and  $n_3$  degrees of freedom, respectively, and designated as treatment mean square ( $V_3$ ), the error mean square ( $V_2$ ), and the doubtful error mean square ( $V_1$ ). It is desired to test a null hypothesis involving  $V_3$ , which can be tested by comparing  $V_3$  with  $V_2$  by the  $F$ -test. It is now suspected that  $V_1$  is also a measure of the error variance, that is, has the same expectation as  $V_2$ . It is decided, therefore, to first perform a preliminary test of significance by comparing

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