

1135-VT-2447      **Hasthika S Rupasinghe Arachchige Don\*** ([hasthika@appstate.edu](mailto:hasthika@appstate.edu)), Department of Mathematical Sciences, Appalachian State University, Boone, NC 28607, and **David J Olive** ([dolive@siu.edu](mailto:dolive@siu.edu)), Department of Mathematics, Southern Illinois University Carbondale, Carbondale, IL 62901. *Bootstrapping Analogs of the one one way MANOVA test.*

The classical one way MANOVA model is used to test whether the mean measurements are the same or differ across  $p$  groups, and assumes that the covariance matrix of each group is the same. This work suggests using the Olive (2017abc) bootstrap technique to develop analogs of one way MANOVA test. A large sample theory test has also been developed. The bootstrap tests can have considerable outlier resistance, and the tests do not need the population covariance matrices to be equal. The two sample Hotelling's  $T^2$  test is the special case of the one way MANOVA model when  $p = 2$ . (Received September 26, 2017)