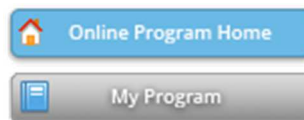Statistics: Making an Impact
July 27 – August 1, 2019
Colorado Convention Center

JSM 2019 Online Program

Return to main conference page

Online Program Home

My Program

Abstract Details

Activity Number:	617 - Testing
Type:	Contributed
Date/Time:	Thursday, August 1, 2019 : 8:30 AM to 10:20 AM
Sponsor:	Biometrics Section
Abstract #307079	
Title:	COMPLEX TESTING PROBLEMS for MULTIVARIATE DATA and SMALL SAMPLE SIZES: a NONPARAMETRIC APPROACH
Author(s):	Stefano Bonnini*
Companies:	University of Ferrara
Keywords:	Multivariate test; Permutation test; Biostatistics; Nonparametric method
Abstract:	The work proposes a methodological solution to complex testing problems. In particular, it is focused on two-sample or multi-sample tests in the presence of multivariate outcomes and very small sample sizes. Parametric solutions are in general very difficult (if not impossible), because there are no degrees of freedom, due to the high number of variables and the low number of observations. Furthermore, the complex (multivariate) nature of the response makes the representation of the dependence structure of the response through a parametric model very difficult and uncertain. Thus, a distribution free approach based on less stringent assumptions about the multivariate underlying distribution but able to capture and implicitly consider the information concerning the dependence between variables, is suitable. The proposed solution belongs to the family of permutation tests. Recent developments, properties and main advantages of this method are presented and discussed in the paper.

Authors who are presenting talks have a * after their name.

↑

American Statistical Association

732 North Washington Street
Alexandria, VA 22314
(703) 684-1221
meetings@amstat.org

Privacy Policy | Conduct Policy | Previous JSMs