Nonparametric Analysis of Data under Random Missingness

by Efi Antoniou, Penn State University

ABSTRACT

Akritas and Kuha (2002) have recently proposed a different definition of missing at random (MAR), but applicable only for the case of matched pairs. The new definition is critical for the development of nonparametric test in the matched pairs problem with missing observations. We will present an extension of this definition to repeated measures designs with three and arbitrarily many ‘measurements’ per subject. This extension allows the development of completely nonparametric method for testing for the presence of factor effects via the nonparametric model of Akritas and Arnold (1994). Simulation results and data analysis will be presented.