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## Using a Multivariate Accommodation Model to Study Anthropometric Differences between Ethnic Groups in Ecuador

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**Abstract:** When modeling human variation using anthropometric data it is important to develop meaningful statistical models. As the cost of collecting and processing large data sets becomes less expensive there is a tendency to include a relative big number of subjects and to increase the number of measurements (variables) for each subject. Due to the fact that many anthropometric variables present very strong correlations, approaching the analysis of anthropometric variables from a univariate perspective can result in poor accommodation models. An alternative approach is to use multivariate accommodation models (MAM) that take into consideration the correlation nature of the variables and that in many cases can result in simple and meaningful models. In this paper we explore how MAM can be used to characterize the anthropometric differences of two ethnic groups in an Ecuadorian population.