**Abstract**

The regional climate behavior as the function of different variables influences the climate in the region. Identifying key elements of a constructive climate in each region can determine the potential of the region's climate to be effective. Using modern methods such as multivariate statistical methods for recognition of climate behavior can achieve more reliable results. Component analysis is mainly based on family of vectors, particularly for reducing the volume of data it is a mathematical method. Using the components can change the time and where about of the climate variables in displaying few components.

In this study with the aim of climate components analysis, data from 19 synoptic stations and 22 climate variable of the provinces of Kermanshah and Kordestan have been used. Method used in this study, is the principal components analysis. Results of the analysis of selected climatic variables in Kermanshah and Kordestan provinces showed that first 6 components in 91% of the data diffractions are explained. These components include: temperature (37%), precipitation (20%), humidity and temperature variations (14%), sunshine hours (9%), stormy days and days with dust storm (5%).

**Keywords**: Recognition of Climate behavior, the principal components analysis, Multivariate statistics, Kermanshah and Kordestan provinces.