

Application of neural networks in archaeometrical data

P.T.M.S. Oliveira¹ and C.S. Munita¹

¹ Instituto de Pesquisas Energéticas e Nucleares, IPEN-CNEN / SP, BR

The study of neural networks is inspired in structure and operation of the human brain and the goal is to establish a linear relationship or not between a set of data input and a corresponding output or response. For this mathematical transformations are used in the input, the network carries out this training "learning" how the system under study behaves and applies this knowledge to new input data to predict the appropriate and to produce the desired output. A neural network can make classification studies (Pereira and Rao, 2009) which in our case is useful as an alternative to cluster analysis, in particular study will be self organizing maps. In this work, a neural network was used to classify samples from archaeological sites and the results were compared with those obtained by k means and discriminant analysis.