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| Notation | Definition |
|  | The element in i^th row and j^th Column in matrix A |
|  | The independent variables matrix |
|  | Row vector of independent variables |
|  | Row vector of dependent variables |
|  | The algebra average of several data |
|  | Click rate sequence in Grey Relational Analysis or click rate matrix in other parts |
|  | Convert rate sequence in Grey Relational Analysis or convert rate matrix in other parts |
|  | The k^th independent variable sequence in Grey Relational Analysis |
|  | The n^th number in the k^th dependent variable sequence in Grey Relational Analysis |
|  | The n^th number in the k^th independent variable sequence in Grey Relational Analysis |
|  | The difference between every two adjacent terms in independent variable sequences in Grey Relational Analysis |
|  | The difference between every two adjacent terms in dependent variable sequences in Grey Relational Analysis |
|  | The correlation coefficient of k^th dependent variable sequence |
|  | The correlation coefficient between k^th dependent variable sequence and l^th independent variable sequence |
|  | The correlation degree between the k^th dependent variable sequence and l^th independent variable sequence |
|  | The information entropy regarding the set of incidence X |
|  | The probability that incident numbered i will happen in the set X |
|  | The information entropy of Category Click and Convert Rate |
|  | The information gain of individual variables related to the Category Click and Convert Rate. |
|  | The data in the i^th line and j^th column in the table of data processing concerning information entropy |
|  | The p^th original variable |
|  | The q^th New variable |
|  | The number of samples |
|  | The number of variables in each sample |
|  | The standardized data at row i and column j |
|  | The data at row i and column j before standardization |
|  | The correlation coefficient matrix in principal component analysis |
|  | The q^th characteristic roots or eigenvalues in weight determination technique |
|  | The q^th characteristic vectors |
|  | The p th value of the q^th characteristic vectors |
|  | Weight vector in Weight Determination Technique |
|  | The number of choices of target layer in Weight Determination Technique |
|  | The eigenvector in Weight Determination Technique |
|  | Coefficient matrixes of the original data |
|  | Coefficient matrixes of Principal Component Regression |
|  | The probability that satisfies condition X |
|  | Reliability in Regression |
|  | Parameters to be estimated of the ensemble in Regression |
|  | The confidence upper limit in Regression |
|  | The confidence lower limit in Regression |
|  | The Mahalanobis distance of the data |
|  | The covariance matrix |
|  | Posteriori probability in Bayes Distinction |
|  | Priori probability in Bayes Distinction |
|  | The frequency at which the sample appears in Bayes Distinction |
|  | The ensemble in Bayes Distinction |
|  | Probability density function of G\_i in Bayes Distinction |
|  | The priori probability of G\_i in Bayes Distinction |
|  | The number of G\_i in Bayes Distinction |
|  | The conditional probability of wrongly categorizing the sample of G\_i to the ensemble G\_j |
|  | The loss caused by the wrong categorization |
|  | A division of a set of distinction samples |
|  | The average wrong distinction loss |
|  | The overall loss of each classifier |
|  | Classification function |
|  | function of each classifier to reduce the loss |
|  | The score of the data to show the accuracy of the prediction |