

Multiple Regression(with Polynomial Regression)

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Abstract—Estimating the relationship among different variable which have reason and result relation holds great importance, to estimate that Regression analysis is a statistical technique that is adapted. Main focus of this uni-variate regression is to analyse the relationship between a non linear and a linear variable and to formulate a linear equation between the two. a regression model which contain one linear and multiple non-linear independent variables is most often called multi linear regression. This paper is concentrated on the polynomial regression model, which is useful when there is reason to believe that relationship between two variables is curvilinear. The polynomial regression model has been applied using the characterisation of the connection between strains and drilling depth. Parameters of the model were estimated employing a least square method. After fitting, the model was evaluated using a number of the common indicators wont to evaluate accuracy of regression model.

I. INTRODUCTION

Regression analysis involves identifying the link between a variable quantity and one or more independent variables. It's one amongst the foremost important statistical tools which is extensively utilized in the majority sciences. It's specially used in business and economics to check the link between two or more variables that are related causally. A model of the relationship is hypothesized, and estimates of the parameter values are accustomed develop an estimated equation.

II. EASE OF USE

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Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, ac, dc, and rms do not have to be defined. Do not use abbreviations in the title or heads unless they are unavoidable.

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- Use a zero before decimal points: “0.25”, not “.25”. Use “cm³”, not “cc”).

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Number equations consecutively. To make your equations more compact, you may use the solidus (/), the exp function, or appropriate exponents. Italicize Roman symbols for quantities and variables, but not Greek symbols. Use a long dash rather than a hyphen for a minus sign. Punctuate equations with commas or periods when they are part of a sentence, as in:

$$a + b = \gamma \tag{1}$$

Be sure that the symbols in your equation have been defined before or immediately following the equation. Use “(1)”, not “Eq. (1)” or “equation (1)”, except at the beginning of a sentence: “Equation (1) is . . .”

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Please use “soft” (e.g., `\eqref{Eq}`) cross references instead of “hard” references (e.g., (1)). That will make it possible to combine sections, add equations, or change the order of figures or citations without having to go through the file line by line.

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- The word “data” is plural, not singular.
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- In American English, commas, semicolons, periods, question and exclamation marks are located within quotation marks only when a complete thought or name is cited, such as a title or full quotation. When quotation marks are used, instead of a bold or italic typeface, to highlight a word or phrase, punctuation should appear outside of the quotation marks. A parenthetical phrase or statement at the end of a sentence is punctuated outside of the closing parenthesis (like this). (A parenthetical sentence is punctuated within the parentheses.)
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- Be aware of the different meanings of the homophones “affect” and “effect”, “complement” and “compliment”, “discreet” and “discrete”, “principal” and “principle”.
- Do not confuse “imply” and “infer”.
- The prefix “non” is not a word; it should be joined to the word it modifies, usually without a hyphen.
- There is no period after the “et” in the Latin abbreviation “et al.”.
- The abbreviation “i.e.” means “that is”, and the abbreviation “e.g.” means “for example”.

An excellent style manual for science writers is [?].

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TABLE I
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Table Head	Table Column Head		
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^aSample of a Table footnote.



Fig. 1. Example of a figure caption.

example, write the quantity “Magnetization”, or “Magnetization, M”, not just “M”. If including units in the label, present them within parentheses. Do not label axes only with units. In the example, write “Magnetization (A/m)” or “Magnetization {A[m(1)]}”, not just “A/m”. Do not label axes with a ratio of quantities and units. For example, write “Temperature (K)”, not “Temperature/K”.

ACKNOWLEDGMENT

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