



REGRESSION ANALYSIS OF A PENDULUM'S OSCILLATION PERIOD

Elsiddig Idriss Mohamed^{1 & 2} and Sultan Albalwy¹

¹Department of Statistics, Faculty of Science, University of Tabuk, Saudi Arabia

²Department of Statistics, Faculty of Science, Sudan University of Science and Technology, Sudan

ABSTRACT

We applied the regression analysis techniques to the data obtained from a simple pendulum experiment. Our data consist of a series of combinations of different variables, weight, length, angle, and period of oscillation. This data is investigated the least-squares linear regression analysis. The estimated model satisfies all the conditions of a best regression model. We found that there is statistically significant positive relationship between time and the other variables length and initial angle.