

1062-65-38

**Jian Zhang\*** (jzhang\_mail104@yahoo.com), Pomona, NY 10970. *A Novel Method for Trend Forecast and Curve-fitting Data*. Preliminary report.

A method for forecasting trends and curve fitting data is described. This method utilizes the simultaneous analysis of repetitive data sets or multiple related variables. The trajectory of the moving object can be forecasted by multivariate calculus. If the path of the interest object is  $F(x, y, z, t)$ , and  $x, y, z$  are the other variables or repetitive data series. The  $\partial F(t)/\partial(x,y,z)$  or  $\partial F(t) / \partial(x,y,z)$  values are indicative of the potential turning points of  $F(t)$ . This method provides better forecast and fit than common regression functions, moving averages or simplistic modeling of single data series. (Received July 08, 2010)