

# Report of Origin use to analyze Data from Spring 2017 (March 31)

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## Summary

The folder Origin files contains an attempt at finding the relation between two of the three physical parameters (load torque, motor speed and supply current) while the 3<sup>rd</sup> is held constant. I chose this over matlab for the simple Excel spreadsheet-like look and flexibility of choosing by how many columns and width to interpolate by before doing surface plots. The cuts made on the surface plot was more visual at a constant value of the 3<sup>rd</sup> parameter of setting the relation of the other two.

## Challenge

The data being analyzed was not in a form accepted by the 3D function because it is required that for n values of say, load torque that are being held constant, nxn values of supply current

and motor speed are required per load torque value. The dataset in use did not exhibit this feature, therefore, the relationships shown did not correspond to expected 2 linear and 1 hyperbolic.

### Advice

Learn from this and do not try to do this analysis if the data set you have is not sufficient.