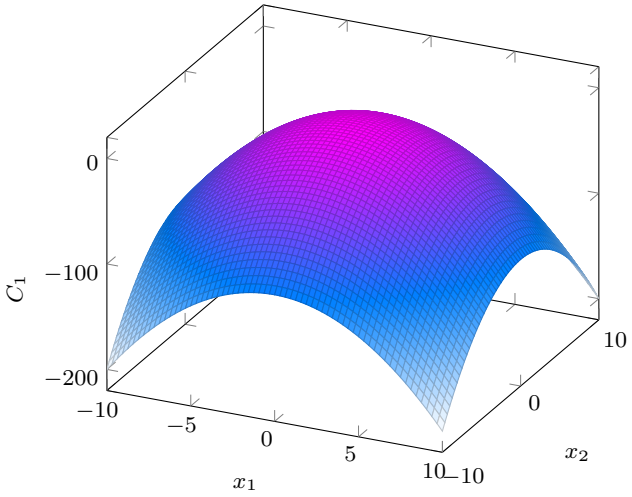

Figure 1: Quadratic concave function $C_1(x_1, x_2)$.

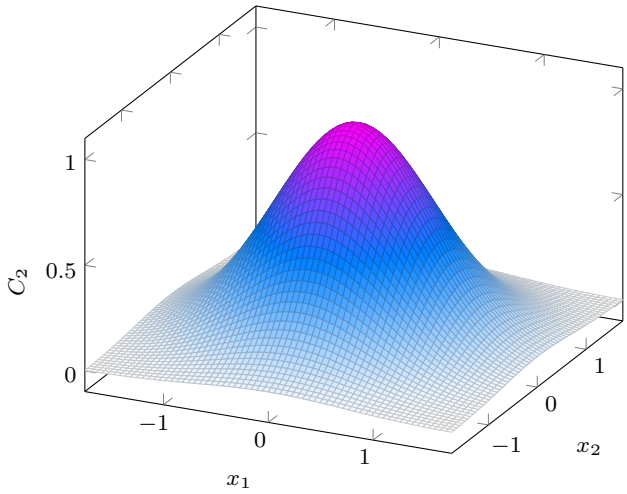

Figure 2: Two variable Gaussian function $C_2(x_1, x_2)$.

1 adf

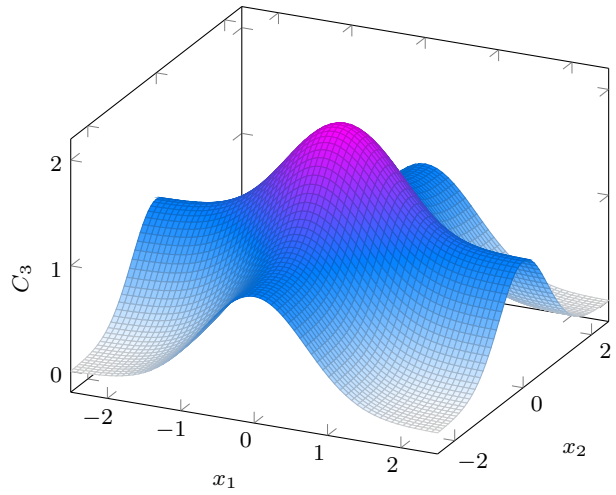

Figure 3: Modified version of Gaussian function $C_3(x_1, x_2)$.

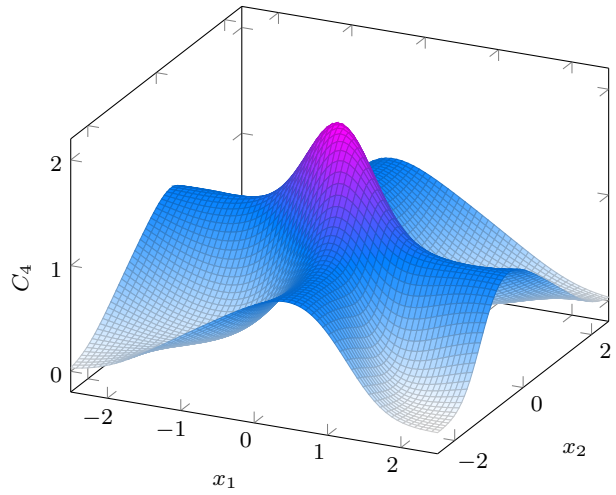

Figure 4: The proposed function $C_4(x_1, x_2)$ for $a = 0.49$.

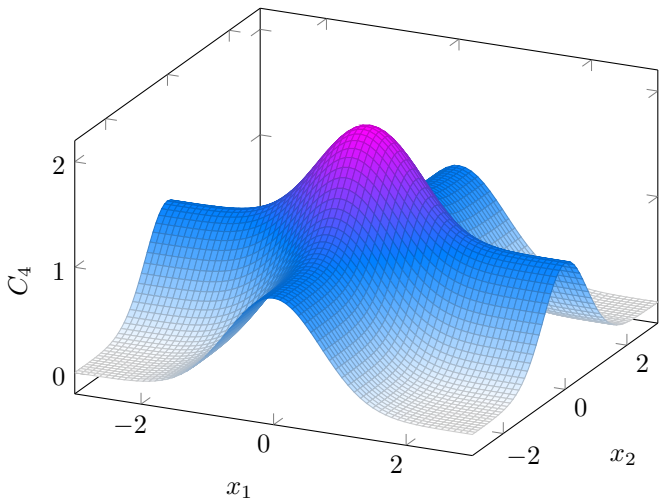

Figure 5: The proposed– function $C_4(x_1, x_2)$ for $a = 0.49$.

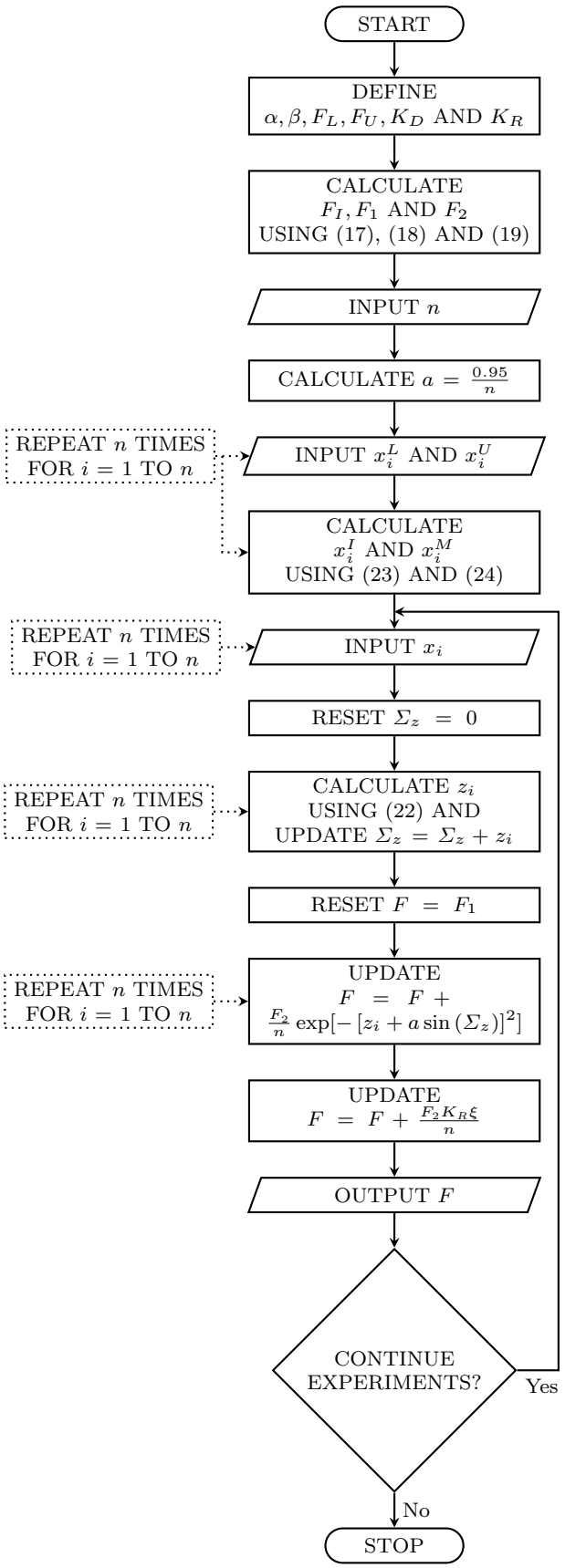

Figure 6: Flowchart of the proposed algorithm

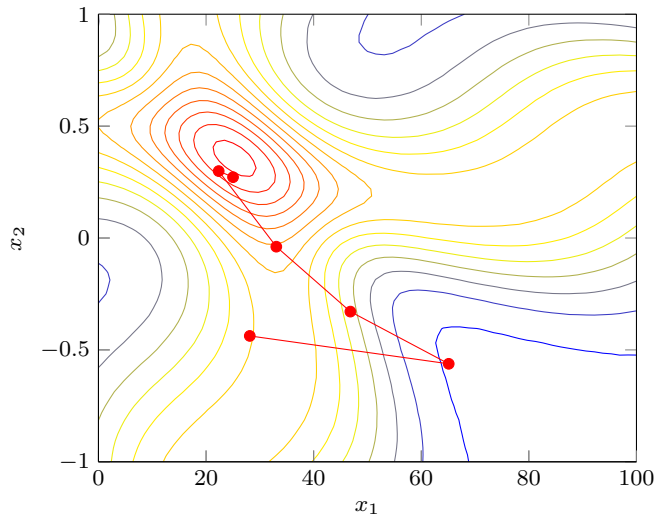

Figure 7: Contour plot of F with the constants given in Section **??** superimposed with the RSM results.

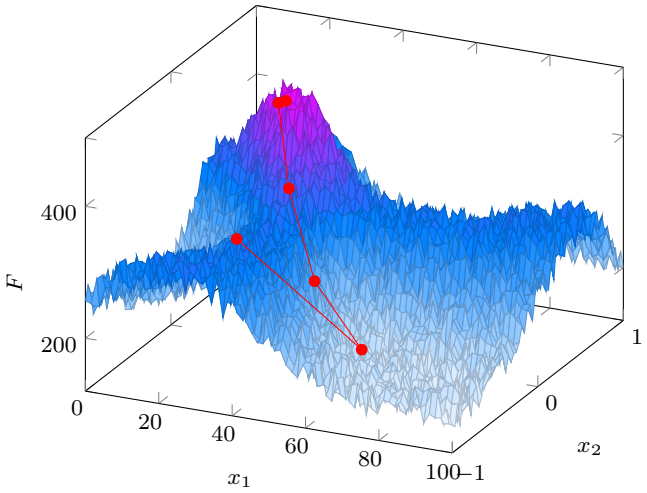

Figure 8: The proposed function $C_4(x_1, x_2)$ for $a = 0.49$.

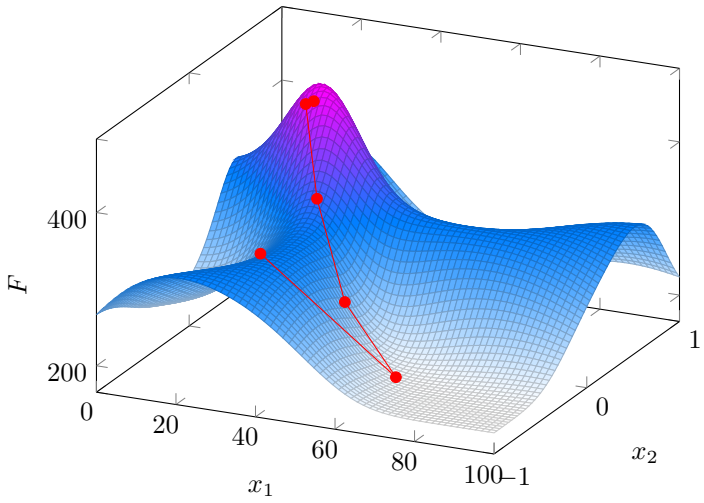

Figure 9: The proposed function $C_4(x_1, x_2)$ for $a = 0.49$.

Select number of factors

2

Reset

Select the upper and lower limits

Factor	Lower limit	Upper limit
Factor 1	0	100
Factor 2	-1	1

Modify factors/limits

Perform individual experiment/measure distance from optimum value (validate optimum value)

Factor	Value
Factor 1	28.125
Factor 2	-0.4375

Calculate response

Is optimum

Response= 320.3734872

Perform bulk experiments

To perform bulk experiments, paste your excel data here.

Figure 10: The proposed function $C_4(x_1, x_2)$ for $a = 0.49$.