

After iteration 1:

the updated SSE(sum of squared error) is:

551516.5774192731

the updated c1 is:

[[ 2.69065848 5.55601619 12.26620984 7.48120434 0.24285351 0.99747068]]

the updated c2 is:

[[ 2.98792136 7.30724305 16.48227403 10.65664851 0.23655629 1.00679373]]

After iteration 2:

the updated SSE(sum of squared error) is:

359475.7966158772

the updated c1 is:

[[ 2.50680171 4.77056093 10.16570693 5.82192441 0.20821519 0.95235302]]

the updated c2 is:

[[ 3.3178565 8.76258517 20.6221998 13.79747907 0.28891998 1.08775325]]

After 34 iterations, with L1\_sum=8.260174003707488e-05,the clusters converge.

Converged c1:

[[2.39808449 4.13452911 8.33493857 4.39337388 0.22207279 0.9255393 ]]

Converged c2:

[[ 4.62056755 14.72014621 38.4113867 27.06530661 0.28272855 1.36682765]]