f01. Sphere Function

- **beta=0.125**
- **beta=0.25**
- **beta=0.5**
- **beta=1**
- **beta=2**
- **beta=4**
- **beta=8**

**Objective function value** vs **Iteration**

- The objective function value decreases exponentially with increasing iterations for all values of beta.
- The rate of decrease is higher for smaller values of beta.

The plot shows the convergence of the algorithm for different values of beta, with the optimal value of beta being the one that achieves the steepest descent and fastest convergence.