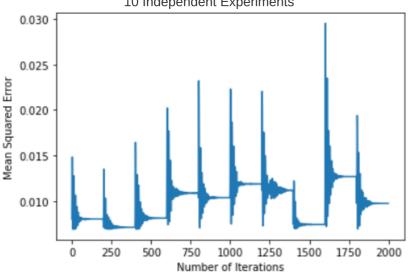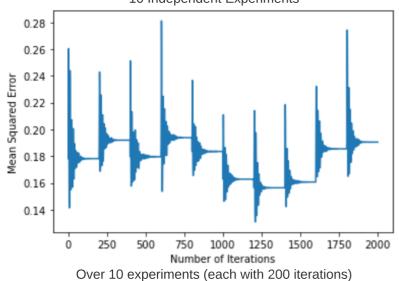## Complex Function Approximation with Sigmoid Activation
10 Independent Experiments
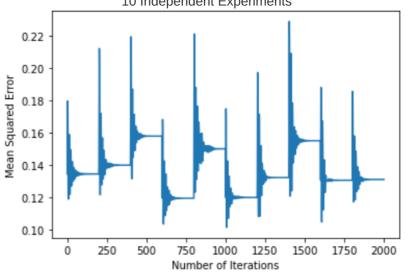

Over 10 experiments (each with 200 iterations)

Complex Function Approximation with TanH Activation
10 Independent Experiments

Over 10 experiments (each with 200 iterations)

Complex Function Approximation with Linear Activation
10 Independent Experiments

Over 10 experiments (each with 200 iterations)

Complex function approximation:

PSO parameters	Sigmoid activation function	Hyperbolic Tangent activation function	Linear activation function
Swarm size	100	100	100
Informants	10	10	10
Epsilon	0.2	0.2	0.2
Alpha range	0.9	0.89	0.9
Position range	-0.01 to 0.09	-0.01 to 0.09	-0.01 to 0.09
Velocity range	0.05 to 0.25	0.05 to 0.25	0.05 to 0.25
Cognitive component	1	1	1
Social component	3	2.7	3
Input Layer nodes	2	2	2
Hidden Layer nodes	10	10	10
Least MSE (approx)	0.009	0.128	0.19

Figure 6