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CS410_BT03

Test function	Star Topology	Ring Topology	Global minimum
Rastrigin	(0.00251399717, 0.0017065313)	(0.0011456687, 0.0082973688)	(0, 0)
Rosenbrock	(2.02358844, 4.2161179)	(-11.2022307, 125.88685)	(1, 1)
Eggholder	(512.0, 404.23310582)	(512.0, 403.9753508561005)	(512, 404.2319)
Ackley	(0.00013042183, -0.0005780366)	(0.000751583, -5.173105e-05)	(0, 0)

Bảng 1: Global best of each test function and topology

Test function	Star Topology	Ring Topology	Global minimum
Rastrigin	0.0018316098	0.0139158893	0
Rosenbrock	2.51686488	164.64610980	0
Eggholder	-959.640660	-959.5660237	-959.6407
Ackley	0.00168538	0.0021459409	0

Bảng 2: Objective value of each test function and topology

Test function	Star Topology	Ring Topology
Rastrigin	0.0018	0.0139
Rosenbrock	2.5168	164.646
Eggholder	0.0001	0.7463
Ackley	0.00168	0.002145

Bảng 3: Distance from global optimum of each test function and topology

Nhận xét

Star topology cho quần thể tiến về global minimum nhanh hơn Ring topology. Khác biệt lớn nhất giữa 2 loại Topology nằm ở hàm Rosenbrock.