Artificial physics algorithm	Particle collision algorithm
Big bang-big crunch	Rain water algorithm
Black hole	Rain-fall optimization algorithm
Central force optimization	Ray optimization
Charged system search	River formation dynamics
Chemotherapy Science algorithm	Self-driven particles
Colliding bodies optimization	Simulated annealing
Electro-magnetism optimization	Simulated raindrop algorithm
Fractal-based algorithm	Sine cosine algorithm
Galaxy-based search algorithm	Sonar inspired optimization
Gravitational search	Space gravitational algorithm
Harmony search	Spiral optimization
Hydrological cycle algorithm	Stochastic difusion search
Intelligent water drop	Thermal exchange optimization
Ions motion algorithm	Vision correction algorithm
Integrated radiation algorithm	Vortex search algorithm
Light ray optimization	Water cycle algorithm
Mass and energy balances algorithm	Water wave optimization
Optics inspired optimization	Weighted attraction method
African buffalo optimization	Grasshopper optmisation algorithm
Alienated ant algorithm	Great salmon run
Ant colony optimizer	Grey wolf optimizer
Ant lion optimizer	Harris hawks optimization
Artificial bee colony	Invasive weed optimization
Artificial root foraging algorithm	Jaguar algorithm
Bacterial foraging	Japanese tree frogs calling
Bacterial-GA foraging	Keshtel algorithm
Bat algorithm	Killer whale optimization
Bee colony optimization	Krill herd
Bee hive	Lion optimization algorithm
Bees algorithm	Locust swarm algorithm
Bees swarm optimization	Marriage in honey bees
Bee system	Monkey search
Bottlenose dolphin optimization	Moth-Flame optimization algorithm
Bumblebees	Opt bees
Cat swarm	Owl search algorithm
Chicken swarm optimization	Paddy field algorithm
Coral reefs optimization algorithm	Queen-bee evolution
Coyote optimization algorithm	Red deer algorithm
Cricket algorithm	Roach infestation algorithm
Crow search algorithm	Salp swarm algorithm
Cuckoo search	Shark smell optimization
Cuttlefish algorithm	Sheep shepherding algorithm
Dolphin echolocation	Shuffled frog leaping algorithm
Dragonfly algorithm	Sperm whale algorithm
Dynamic virtual bats algorithm	Spotted hyena optimizer
Eagle strategy	Squirrel search algorithm
Egyptian vulture algorithm	Swine flow optimization algorithm
Elephant search algorithm	Termite colony optimization
Emperor penguins colony	Tree growth algorithm
Fast bacterial swarming algorithm	Virtual ant algorithm
Firefly algorithm	Virtual bees
Fish swarm school	Virus colony search
Flower pollination algorithm	Weightless swarm algorithm
Fruit fly optimization	Whale optimization algorithm
Glowworm swarm optimization	Wolf search