

		Entity State					Population State				
heuristic	hyper-parameter	notes	Represents the candidate solution	Is analogous to the negative gradient	Is analogous to velocity	gradient	sum of gradients squared	expected position variance	expected gradient mean (hp1)	Goes hand in hand with gradient and thus also velocity	Goes hand in hand with gradient^2 and thus also acceleration
			position	velocity						expected variance (hp2)	
sgd	learning rate		x	x		x	-	-	-	-	x
momentum	learning rate, momentum (maps to hp1)		x	x		x	-	-	x	-	x
nag											
adagrad	learning rate, epsilon		x	x		x	-	-	x	-	-
rmsprop	learning rate, rho (maps to hp2), momentum (maps to hp1), epsilon		x	x		x	x	-	-	-	x
adadelta	rho (maps to hp2), epsilon		x	x		x	-	x	-	x	x
adam	learning rate, momentum (maps to hp1), rho (maps to hp2)		x	x		x	-	-	x	x	x
PSO	W, C1, C2		x	x		o	-	-	-	-	x
DE			x	o		o	-	-	-	-	x
GA	mutation rate		x	o		o	-	-	-	-	x
BHH	burn in, replay window size, population size, reselection and reanalysis window size, normalisation, discounted rewards		x	x		x	x	x	x	x	x