Enhanced Artificial Colony Bee (EABC)

Original ABC:

- (1) Search equation: $V_{ij} = x_{ij} + \phi_{ij} (x_{ij} - x_{kj})$
- (2) Only one scout bee is allowed to randomly re-initialize the bee that is in local minimum in each iteration.
- (3) The randomized equation: $X_{ij} = X_{ij\ \min} + rand\ (0, 1) \times (X_{ij\ \max} - X_{ij\ \min})$

Enhanced ABC:

- (1) Search equation: -normrnd(mu,sd).*(mu - sd*tan(pi*(rand(1,1))-0.5)) –- based on inversed CDF of Cauchy distribution.
- (2) All scout bees are to randomly re-initialize the bees that is in local minimum in each iteration.
- (3) The randomized equation: Foods(i,:) + (iter / maxCycle) * (rand - 0.5) * 2 * Foods(i,:) –- values are dynamically dependent on current iteration and total iterations.

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