# Co-Evolutionary Fruit Fly Optimization Algorithm and Firefly Algorithm for Solving Unconstrained Optimization Problems

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**Abstract :** This paper presents co-evolutionary fruit fly optimization algorithm based on firefly algorithm (CFOA-FA) for solving unconstrained optimization problems. The proposed algorithm integrates the merits of fruit fly optimization algorithm (FOA), firefly algorithm (FA) and elite strategy to refine the performance of classical FOA. Moreover, co-evolutionary mechanism is performed by applying FA procedures to ensure the diversity of the swarm. Finally, the proposed algorithm CFOA- FA is tested on several benchmark problems from the usual literature and the numerical results have demonstrated the superiority of the proposed algorithm for finding the global optimal solution.