Algorithm 2 Differential Evolution

determine objective function (OF)
assign number of generation to 0 (t=0)
randomly create individuals in initial population P(t)
while termination criterion is not satisfied **do**
    t=t+1
    for each i-th individual in the population P(t) **do**
        randomly generate three integer numbers:
        $r_1, r_2, r_3 \in [1;$ population size$]$, where $r_1 \neq r_2 \neq r_3 \neq i$
        for each j-th gene in i-th individual (j$\in$[1; n]) **do**
            $v_{i,j} = x_{r1,j} + F \cdot (x_{r2,j} - x_{r3,j})$
            randomly generate one real number $rand_j \in [0; 1)$
            if $rand_j < CR$ **then** $u_{i,j} := v_{i,j}$
            else
                $u_{i,j} := x_{i,j}$
            end if
        end for
        if individual u_i is better than individual x_i **then**
            replace individual x_i by child u_i individual
        end if
    end for
end while
return the best individual in population P(t)