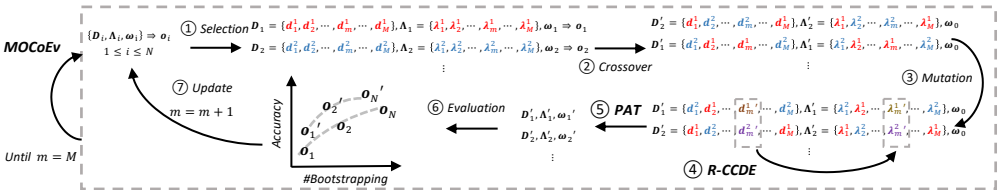
MOCoEv
$\{\boldsymbol{D}_i, \boldsymbol{\Lambda}_i, \boldsymbol{\omega}_i\} \Rightarrow \boldsymbol{o}_i$
$1 \le i \le N$
① Selection
$\boldsymbol{D}_1 = \{\boldsymbol{d}_1^1, \boldsymbol{d}_2^1, \cdots, \boldsymbol{d}_m^1, \cdots, \boldsymbol{d}_M^1\}, \boldsymbol{\Lambda}_1 = \{\boldsymbol{\lambda}_1^1, \boldsymbol{\lambda}_2^1, \cdots, \boldsymbol{\lambda}_m^1, \cdots, \boldsymbol{\lambda}_N^1\}, \boldsymbol{\omega}_1 \Rightarrow \boldsymbol{o}_1$
$\boldsymbol{D}_2 = \{\boldsymbol{d}_1^2, \boldsymbol{d}_2^2, \cdots, \boldsymbol{d}_m^2, \cdots, \boldsymbol{d}_M^2\}, \boldsymbol{\Lambda}_2 = \{\boldsymbol{\lambda}_1^2, \boldsymbol{\lambda}_2^2, \cdots, \boldsymbol{\lambda}_m^2, \cdots, \boldsymbol{\lambda}_N^2\}, \boldsymbol{\omega}_2 \Rightarrow \boldsymbol{o}_2$
② Crossover
$\boldsymbol{D}_1' = \{\boldsymbol{d}_1^1, \boldsymbol{d}_2^1, \cdots, \boldsymbol{d}_m^2, \cdots, \boldsymbol{d}_M^1\}, \boldsymbol{\Lambda}_1' = \{\boldsymbol{\lambda}_1^1, \boldsymbol{\lambda}_2^1, \cdots, \boldsymbol{\lambda}_m^2, \cdots, \boldsymbol{\lambda}_N^1\}, \boldsymbol{\omega}_0$
$\boldsymbol{D}_1' = \{\boldsymbol{d}_1^2, \boldsymbol{d}_2^2, \cdots, \boldsymbol{d}_m^1, \cdots, \boldsymbol{d}_M^2\}, \boldsymbol{\Lambda}_1' = \{\boldsymbol{\lambda}_1^2, \boldsymbol{\lambda}_2^2, \cdots, \boldsymbol{\lambda}_m^1, \cdots, \boldsymbol{\lambda}_N^2\}, \boldsymbol{\omega}_0$
③ Mutation
④ R-CCDE
$\boldsymbol{D}_1' = \{\boldsymbol{d}_1^2, \boldsymbol{d}_2^2, \cdots, \boldsymbol{d}_m^1{}', \cdots, \boldsymbol{d}_M^2\}, \boldsymbol{\Lambda}_1' = \{\boldsymbol{\lambda}_1^2, \boldsymbol{\lambda}_2^2, \cdots, \boldsymbol{\lambda}_m^1{}', \cdots, \boldsymbol{\lambda}_N^2\}, \boldsymbol{\omega}_0$
$\boldsymbol{D}_2' = \{\boldsymbol{d}_1^1, \boldsymbol{d}_2^1, \cdots, \boldsymbol{d}_m^2{}', \cdots, \boldsymbol{d}_M^1\}, \boldsymbol{\Lambda}_2' = \{\boldsymbol{\lambda}_1^1, \boldsymbol{\lambda}_2^1, \cdots, \boldsymbol{\lambda}_m^2{}', \cdots, \boldsymbol{\lambda}_N^1\}, \boldsymbol{\omega}_0$
⑤ PAT
$\boldsymbol{D}_1', \boldsymbol{\Lambda}_1', \boldsymbol{\omega}_1'$
$\boldsymbol{D}_2', \boldsymbol{\Lambda}_2', \boldsymbol{\omega}_2'$
⑥ Evaluation
Accuracy
#Bootstrapping
$\boldsymbol{o}_1$ $\boldsymbol{o}_1'$ $\boldsymbol{o}_2$ $\boldsymbol{o}_2'$ $\boldsymbol{o}_N$ $\boldsymbol{o}_N'$
⑦ Update
$m = m + 1$
Until $m = M$