Wine-Quality-Prediction.R

Warning: package 'caret' was built under R version 4.3.3

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```
## Wine Quality Prediction using Random Forest, XGBoost, and Decision Trees
# load the necessary libraries
library(caTools)
library(mice)
## Warning: package 'mice' was built under R version 4.3.3
## Attaching package: 'mice'
## The following object is masked from 'package:stats':
##
##
       filter
##
   The following objects are masked from 'package:base':
##
       cbind, rbind
library(ggplot2)
library(dplyr)
##
## Attaching package: 'dplyr'
## The following objects are masked from 'package:stats':
##
##
       filter, lag
## The following objects are masked from 'package:base':
##
       intersect, setdiff, setequal, union
##
library(corrgram)
library(corrplot)
## corrplot 0.92 loaded
library(randomForest)
## randomForest 4.7-1.1
## Type rfNews() to see new features/changes/bug fixes.
## Attaching package: 'randomForest'
   The following object is masked from 'package:dplyr':
##
##
       combine
## The following object is masked from 'package:ggplot2':
##
##
       margin
library(caret)
```

```
## Zorunlu paket yükleniyor: lattice
##
## Attaching package: 'lattice'
## The following object is masked from 'package:corrgram':
##
##
       panel.fill
library(vip)
## Warning: package 'vip' was built under R version 4.3.3
## Attaching package: 'vip'
## The following object is masked from 'package:utils':
##
##
       νi
library(class)
library(rpart)
library(rpart.plot)
library(xgboost)
## Warning: package 'xgboost' was built under R version 4.3.3
##
## Attaching package: 'xgboost'
## The following object is masked from 'package:dplyr':
##
##
       slice
# load the data set
df <- read.csv("wine.csv")</pre>
# str of the df & correctting the classes
str(df)
                  1599 obs. of 13 variables:
## 'data.frame':
                         : num 7.4 7.8 7.8 11.2 7.4 7.4 7.9 7.3 7.8 7.5 ...
## $ fixed.acidity
## $ volatile.acidity
                          : num 0.7 0.88 0.76 0.28 0.7 0.66 0.6 0.65 0.58 0.5 ...
## $ citric.acid
                         : num 0 0 0.04 0.56 0 0 0.06 0 0.02 0.36 ...
   $ residual.sugar
                         : num 1.9 2.6 2.3 1.9 1.9 1.8 1.6 1.2 2 6.1 ...
                          : num
                                 0.076 0.098 0.092 0.075 0.076 0.075 0.069 0.065 0.073 0.071 ...
   $ free.sulfur.dioxide : num 11 25 15 17 11 13 15 15 9 17 ...
##
## $ total.sulfur.dioxide: num 34 67 54 60 34 40 59 21 18 102 ...
## $ density
                         : num 0.998 0.997 0.997 0.998 0.998 ...
                         : num 3.51 3.2 3.26 3.16 3.51 3.51 3.3 3.39 3.36 3.35 ...
## $ pH
##
   $ sulphates
                         : num 0.56 0.68 0.65 0.58 0.56 0.56 0.46 0.47 0.57 0.8 ...
                                 9.4 9.8 9.8 9.8 9.4 9.4 9.4 10 9.5 10.5 ...
    $ alcohol
                         : num
##
    $ quality
                          : int
                                5 5 5 6 5 5 5 7 7 5 ...
                                 "normal" "normal" "normal" ...
##
   $ taste
                         : chr
df$taste <- as.factor(df$taste)</pre>
# removing the quality column due to its strong correlation with taste
df <- df [, -12]
# check the missing values
md.pattern(df) # completely observed
```

```
## /\  /\
## { `---' }
## { 0 0 }
## ==> V <== No need for mice. This data set is completely observed.
## \ \|/ /
## `----'</pre>
```

fixed acidity.



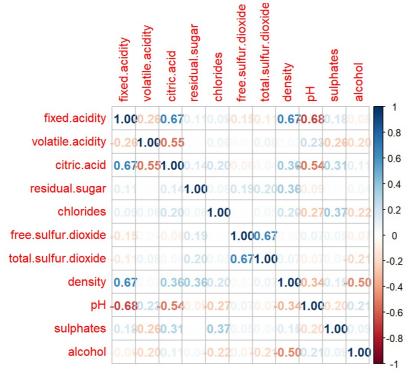
```
fixed.acidity volatile.acidity citric.acid residual.sugar chlorides
##
## 1599
                                                 1
                                     1
                                                                1
                                                                          1
                   1
##
                    0
                                     0
                                                 0
                                                                0
                                                                          0
##
        free.sulfur.dioxide total.sulfur.dioxide density pH sulphates alcohol
## 1599
                         1
                                              1
                                                      1 1
                                                                            1
                                                                    1
##
                          0
                                                       0 0
##
        taste
## 1599
           1 0
##
            0 0
```

check the taste col

table(df\$taste) # upon examining the confusion matrices in my dataset, it appears that sensitivity and specificit y values may be unavailable (NA) due to the dataset's lack of a balanced distribution.

```
##
## bad good normal
## 63 217 1319
```

```
# correlation graph
corr.matrix <- cor(df [,-12])
corrplot(corr.matrix, method = "number")</pre>
```



```
# test & train split
split <- sample.split(df$taste, SplitRatio = 0.8)
train <- subset(df, split == TRUE)
test <- subset(df, split == FALSE)

# dim of the test set
dim(test)</pre>
```

```
## [1] 320 12
```

dim of the train set dim(train)

```
## [1] 1279 12
```

```
## mtry
## 2 2
```

```
# building a rf with best parameters
rf.model.param <- randomForest(taste~., train, mtry = rf.model$bestTune$mtry, ntree = 30)
rf.model.param</pre>
```

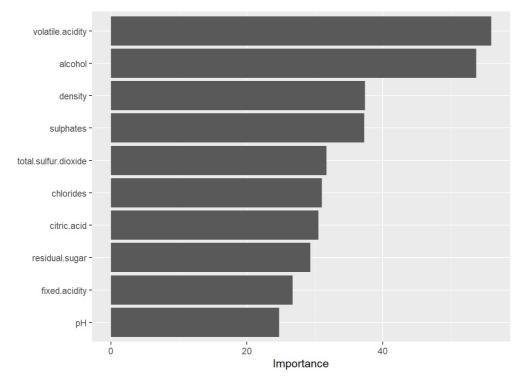
```
##
## Call:
##
   randomForest(formula = taste ~ ., data = train, mtry = rf.model$bestTune$mtry,
                                                                                          ntree = 30)
##
                  Type of random forest: classification
##
                        Number of trees: 30
## No. of variables tried at each split: 2
##
##
           00B estimate of error rate: 14.54%
## Confusion matrix:
##
          bad good normal class.error
## bad
                       46 0.94000000
            3
                1
## good
            0
                83
                       91
                           0.52298851
## normal
            8
                40
                     1007 0.04549763
# predictions
rf.preds <- predict(rf.model.param, test)</pre>
# confusion matrix of the RF model
cm.rf <- confusionMatrix(test$taste, rf.preds)</pre>
cm.rf
## Confusion Matrix and Statistics
##
##
             Reference
## Prediction bad good normal
```

```
##
                0
                    0
                           13
       bad
##
       good
                0
                    21
                           22
       normal 0
                          251
##
                    13
##
## Overall Statistics
##
##
                  Accuracy: 0.85
##
                    95% CI: (0.8061, 0.8873)
##
       No Information Rate: 0.8938
##
       P-Value [Acc > NIR] : 0.994
##
##
                     Kappa : 0.3961
##
##
   Mcnemar's Test P-Value : NA
##
## Statistics by Class:
##
##
                        Class: bad Class: good Class: normal
## Sensitivity
                                NA
                                        0.61765
                                                       0.8776
                           0.95937
## Specificity
                                        0.92308
                                                       0.6176
                                        0.48837
## Pos Pred Value
                                NA
                                                       0.9508
## Neg Pred Value
                                NA
                                        0.95307
                                                       0.3750
## Prevalence
                           0.00000
                                        0.10625
                                                       0.8938
## Detection Rate
                           0.00000
                                        0.06563
                                                       0.7844
## Detection Prevalence
                           0.04063
                                        0.13437
                                                       0.8250
## Balanced Accuracy
                                NA
                                        0.77036
                                                       0.7476
```

cm.rf\$byClass

```
##
                 Sensitivity Specificity Pos Pred Value Neg Pred Value Precision
## Class: bad
                              0 9593750
                                                    NΑ
                                                                    NA O OOOOOO
                         NΑ
                   0.6176471
                               0.9230769
                                              0.4883721
                                                             0.9530686 0.4883721
## Class: good
## Class: normal
                   0.8776224
                               0.6176471
                                              0.9507576
                                                             0.3750000 0.9507576
                                 F1 Prevalence Detection Rate
##
                   Recall
## Class: bad
                       NA
                                 NA
                                       0.00000
                                                     0.000000
## Class: good
                 0.6176471 0.5454545
                                        0.10625
                                                      0.065625
## Class: normal 0.8776224 0.9127273
                                       0.89375
                                                     0.784375
##
                 Detection Prevalence Balanced Accuracy
## Class: bad
                             0.040625
## Class: good
                            0.134375
                                              0.7703620
                            0.825000
## Class: normal
                                              0.7476347
```

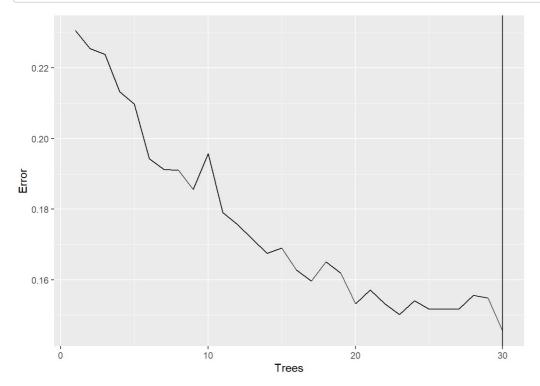
```
# variable importance
vip(rf.model.param)
```



```
# optimum number of tree
error.rate <- data.frame(
   Trees = rep(1:nrow(rf.model.param$err.rate)),
   Error = rf.model.param$err.rate [, "00B"]
)

# min error
minerrorpts <- error.rate$Trees [error.rate$Error == min(error.rate$Error)]

# plotting to determine optimal number of trees
ggplot(error.rate, aes(x = Trees, y = Error)) +
   geom_line() +
   geom_vline(xintercept = minerrorpts [1])</pre>
```

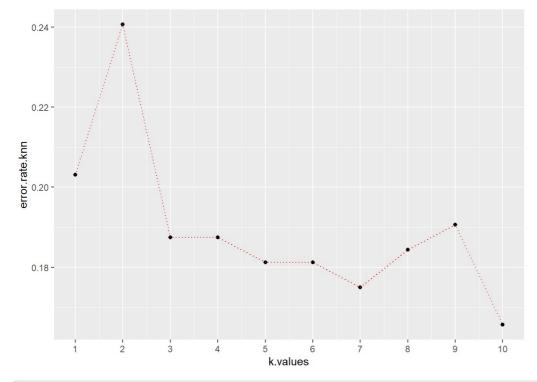


```
## KNN
# test & train set without labels
test.knn <- test [1:11] # test set without label to be used in knn classification
train.knn <- train [1:11] # train set without label to be used in knn classification
# building a knn model with k = 1
knn.classifier <- knn(train = train.knn, # train set without label used
                      test = test.knn, # test set without label used
                      cl = train$taste, # train set with label used
                      k = 1)
# choosing the k value
classifier.knn = NULL
error.rate.knn = NULL
for (i in 1:10) {
  classifier.knn <- knn(train = train.knn,</pre>
                        test = test.knn,
                        cl = train$taste,
                        k = i
  error.rate.knn [i] <- mean(test$taste != classifier.knn)</pre>
print(error.rate.knn)
```

```
## [1] 0.203125 0.240625 0.187500 0.187500 0.181250 0.181250 0.175000 0.184375
## [9] 0.190625 0.165625
```

```
# error rate knn vs values of K
k.values <- 1:10
error.rate.knn.k <- data.frame(error.rate.knn, k.values)

# elbow method to determine optimum k value
ggplot(error.rate.knn.k, aes(x = k.values, y = error.rate.knn)) +
geom_point() +
geom_line(lty = "dotted", color = "red") +
scale_x_continuous(breaks = seq(1, 10, by = 1))</pre>
```



```
# confusion matrix of the KNN model
table(knn.classifier, test$taste)
```

```
##
## knn.classifier bad good normal
##
                    2
                         0
                               10
           bad
##
           good
                    1
                        25
                               26
##
           normal 10
                        18
                              228
```

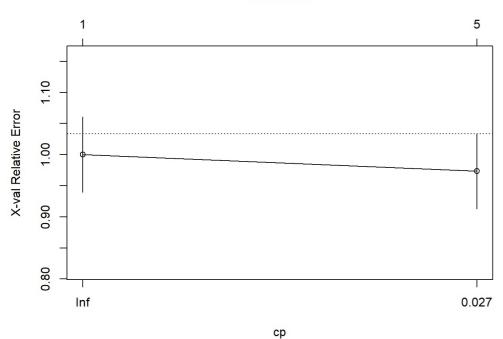
```
# error rate of the best KNN model
misclasserror.knn <- mean(test$taste != classifier.knn)
accuracy.knn <- 1 - misclasserror.knn
accuracy.knn</pre>
```

```
## [1] 0.834375
```

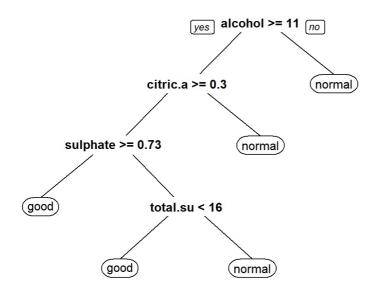
```
## cp
## 2 0.02
```

```
# building the final model
ct.final.model <- rpart(
  taste~.,
  data = train,
  cp = ct.model$bestTune$cp
)
# Cross-validation Error vs. Complexity Parameter (CP)
plotcp(ct.final.model)</pre>
```

size of tree



```
# classification tree
print(prp(ct.final.model))
```



```
## $obj
## n= 1279
##
##
  node), split, n, loss, yval, (yprob)
##
        * denotes terminal node
##
##
   1) root 1279 224 normal (0.03909304 0.13604378 0.82486317)
##
      2) alcohol>=11.15 305 122 normal (0.03278689 0.36721311 0.60000000)
##
        4) citric.acid>=0.295 179 88 good (0.01117318 0.50837989 0.48044693)
##
          8) sulphates>=0.725 74 25 good (0.00000000 0.66216216 0.33783784) *
          9) sulphates< 0.725 105 44 normal (0.01904762 0.40000000 0.58095238)
##
##
          19) total.sulfur.dioxide>=15.5 69 20 normal (0.01449275 0.27536232 0.71014493) *
##
##
       5) citric.acid< 0.295 126 29 normal (0.06349206 0.16666667 0.76984127) *
##
      3) alcohol< 11.15 974 102 normal (0.04106776 0.06365503 0.89527721) *
##
## $snipped.nodes
## NULL
##
## $xlim
##
  [1] -0.2 1.2
##
## $ylim
## [1] -0.1 1.1
##
## $x
## [1] 0.72122580 0.49314628 0.26527204 0.03945073 0.49109336 0.28580125 0.69638546
##
  [8] 0.72102051 0.94930533
##
## $v
## [1] 0.95182258 0.71730818 0.48279378 0.24827938 0.24827938 0.01376498 0.01376498
## [8] 0.48279378 0.71730818
##
##
  $branch.x
                                        [,4]
##
                   [,2]
                             [,3]
                                                  [,5]
                                                            [,6]
         [,1]
\#\# \times 0.7212258 \ 0.4931463 \ 0.2652720 \ 0.03945073 \ 0.4910934 \ 0.2858013 \ 0.6963855
           NA 0.6756099 0.4475714 0.22010778 0.3104363 0.4500349 0.5321518
##
           NA 0.7212258 0.4931463 0.26527204 0.2652720 0.4910934 0.4910934
##
         [,8]
                   [,9]
## x 0.7210205 0.9493053
##
    0.5387211 0.7668417
##
    0.4931463 0.7212258
##
##
  $branch.y
##
                   [,2]
                             [,3]
                                       [,4]
                                                 [,5]
                                                            [,6]
  y 0.9576687 0.7231543 0.4886399 0.3011055 0.2541255 0.06659107 0.06659107
##
##
           NA 0.9518226 0.7173082 0.4827938 0.4827938 0.24827938 0.24827938
##
           NA 0.9518226 0.7173082 0.4827938 0.4827938 0.24827938 0.24827938
##
          [,8]
## y 0.5356199 0.7701343
    0.7173082 0.9518226
```

```
0.7173082 0.9518226
##
## $labs
                  NA
## [1] NA NA
                          "good" NA
                                        "good" "normal" "normal"
## [9] "normal"
##
## $cex
## [1] 1
##
## $boxes
## $boxes$x1
            NA NA NA -0.01722541 NA 0.22912511
## [1]
## [7] 0.62240818 0.64704323 0.87532805
##
## $boxes$y1
           NA NA
                          NA 0.23067068
                                                 NA -0.00384372
## [1]
## [7] -0.00384372  0.46518508  0.69969948
## $boxes$x2
## [1] NA NA
                            NA 0.09612687
                                              NA 0.34247739 0.77036274
## [8] 0.79499779 1.02328261
##
## $boxes$y2
## [1] NA NA
                        NA 0.30110547
                                         NA 0.06659107 0.06659107
## [8] 0.53561987 0.77013427
##
##
## $split.labs
## [1] ""
##
## $split.cex
## [1] 1 1 1 1 1 1 1 1 1
##
## $split.box
## $split.box$x1
## [1] 0.58281670 0.35294740 0.09941976 NA 0.36282630 NA
                                                               NA
## [8] NA NA
## $split.box$y1
## [1] 0.9342139 0.6996995 0.4651851 NA 0.2306707
                                                 NA
                                                           NA
## [8] NA NA
##
## $split.box$x2
## [1] 0.8596349 0.6333452 0.4311243
                                  NA 0.6193604
                                                   NA
                                                           NA
      NA
## [8]
                 NA
##
## $split.box$v2
## [1] 1.0046487 0.7701343 0.5356199 NA 0.3011055
                                                  NA
                                                           NA
## [8]
      NA NA
```

```
# predictions
ct.preds <- predict(ct.final.model, newdata = test, type = "class")
# confusion matrix
confusionMatrix(test$taste, ct.preds)</pre>
```

```
## Confusion Matrix and Statistics
##
##
             Reference
## Prediction bad good normal
##
                0
                   0
                           13
      bad
##
                0
                    12
       good
                           31
              0 17
                          247
##
       normal
##
## Overall Statistics
##
##
                  Accuracy: 0.8094
##
                    95% CI: (0.762, 0.8509)
##
       No Information Rate: 0.9094
       P-Value [Acc > NIR] : 1
##
##
##
                     Kappa: 0.1977
##
##
    Mcnemar's Test P-Value: NA
##
## Statistics by Class:
##
##
                        Class: bad Class: good Class: normal
## Sensitivity
                               NA
                                       0.41379
                                                       0.8488
                                       0.89347
## Specificity
                           0.95937
                                                       0.4138
## Pos Pred Value
                                NA
                                       0.27907
                                                       0.9356
## Neg Pred Value
                                NA
                                        0.93863
                                                       0.2143
                           0.00000
## Prevalence
                                       0.09062
                                                       0.9094
                           0.00000
## Detection Rate
                                       0.03750
                                                       0.7719
                           0.04063
## Detection Prevalence
                                       0.13437
                                                       0.8250
## Balanced Accuracy
                                NA
                                       0.65363
                                                       0.6313
```

```
## XGB00ST
# grid search
param grid xgb <- expand.grid(</pre>
  nrounds = c(50, 100, 200, 500),
  max_depth = c(2, 4, 6),
  eta = seq(0.1, 0.3, by = 0.1),
  gamma = c(1, 3, 5),
  min child weight = c(2, 5, 7),
  subsample = 0.5,
  colsample by tree = 0.5
)
# train control
control.xgb <- trainControl(</pre>
  method = "cv",
  number = 5,
  verboseIter = TRUE,
  allowParallel = TRUE
# xgb tune
xgb.tune <- train(</pre>
  x = train[, -12],
  y = train[, 12],
  trControl = control.xgb,
  tuneGrid = param grid xgb,
  verbose = TRUE,
  method = "xgbTree"
```

```
## + Fold1: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [17:58:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [17:58:19] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:19] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## # Fold1: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [17:58:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
```

```
## [17:58:23] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:23] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:58:23] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [17:58:25] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:58:25] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## [17:58:25] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [17:58:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:26] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [17:58:27] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:27] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:27] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [17:58:29] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:58:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [17:58:31] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:58:31] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:58:31] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [17:58:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:33] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.1, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max depth=4, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [17:58:36] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:36] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:36] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [17:58:38] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:58:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [17:58:41] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:41] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:58:41] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.1, max depth=4, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [17:58:43] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:43] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:43] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [17:58:46] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:46] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:46] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [17:58:49] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:58:49] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:49] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [17:58:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:51] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [17:58:54] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:54] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:54] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [17:58:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:58:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
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## + Fold1: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [17:59:01] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:01] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:01] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [17:59:03] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:03] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:03] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [17:59:08] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:08] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:08] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [17:59:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [17:59:14] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:14] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:14] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max depth=6, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [17:59:18] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:18] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [17:59:22] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:22] WARNING: src/c api/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.1, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [17:59:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [17:59:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
 \begin{tabular}{ll} \#\# & [17:59:26] \end{tabular} WARNING: $$src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. \end{tabular} 
## [17:59:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [17:59:28] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:28] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:28] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [17:59:29] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:29] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:29] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [17:59:31] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:31] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:31] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [17:59:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [17:59:33] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:33] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:33] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [17:59:35] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:35] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:35] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.2, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [17:59:36] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:36] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:36] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
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## - Fold1: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [17:59:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [17:59:40] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [17:59:43] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:43] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:43] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.2, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [17:59:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:45] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [17:59:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [17:59:50] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [17:59:53] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:53] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [17:59:53] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.2, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [17:59:56] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:56] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:56] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
 \begin{tabular}{ll} \#\# & [17:59:58] \end{tabular} WARNING: $$src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. \end{tabular} 
## [17:59:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [17:59:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:00:01] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:01] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:01] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:00:04] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:04] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:04] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.2, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:00:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:00:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:00:14] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:14] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:14] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:00:17] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:17] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:17] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:00:20] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:20] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
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## [18:00:20] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:00:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:00:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:00:31] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:31] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:31] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.2, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:00:32] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:32] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:32] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.3, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:00:34] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:34] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:34] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:00:35] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:35] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. ## [18:00:35] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:00:37] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:37] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:37] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:00:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:38] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:00:39] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:39] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:39] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:00:41] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:41] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:41] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:00:42] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:42] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:00:43] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:43] WARNING: src/c api/c api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:43] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:00:46] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:46] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:46] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:00:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:00:51] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:00:53] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
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## [18:00:53] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:00:53] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:00:56] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:56] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:56] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:00:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:00:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:01:01] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:01] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:01] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:01:03] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:03] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:03] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:01:06] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:06] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:06] WARNING: src/c api/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:01:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:01:12] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:12] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:12] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:01:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:15] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:01:19] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:19] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:19] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold1: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:01:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:01:25] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
 \begin{tabular}{ll} ## [18:01:25] WARNING: $$src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. \\ \end{tabular} 
## - Fold1: eta=0.3, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:01:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:29] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:01:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold1: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:01:36] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:36] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:36] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold1: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:01:37] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:37] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:37] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
```

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## [18:01:39] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:39] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:39] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:01:40] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:40] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## [18:01:40] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:01:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:42] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:01:43] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:43] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:43] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:01:44] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:44] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:44] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:01:46] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:46] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:46] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:01:47] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:47] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:47] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:01:49] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:49] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:49] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:01:52] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:52] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:52] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:01:55] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:55] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:01:55] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:01:57] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:57] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:01:57] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max depth=4, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:02:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:02:02] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:02:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:05] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.1, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:02:08] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:08] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:08] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:02:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
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## + Fold2: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:02:13] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:13] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:13] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:02:17] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:17] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:17] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:02:20] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:20] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:20] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:02:23] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:23] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:23] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:02:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:02:31] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:31] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:31] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:02:34] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:34] WARNING: src/c api/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:34] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:02:39] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:39] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:39] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:02:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
 \begin{tabular}{ll} ## [18:02:42] WARNING: $$src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. \\ \end{tabular} 
## [18:02:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:02:46] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:46] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:46] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:02:47] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:47] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:47] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:02:49] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:49] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:49] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:02:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:02:52] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:52] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:52] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:02:54] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:54] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:02:54] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:02:56] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:56] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:56] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
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## - Fold2: eta=0.2, max depth=2, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:02:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:02:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:03:00] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:03:02] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:02] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:02] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.2, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:03:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:05] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:03:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:03:10] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:03:12] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:12] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:12] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.2, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:03:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
 \begin{tabular}{ll} ## [18:03:18] WARNING: $$src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. \\ \end{tabular} 
## [18:03:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:03:21] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:21] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:21] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:03:24] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:24] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:24] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.2, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:03:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:03:30] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:30] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:30] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:03:33] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:03:36] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:36] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:36] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:03:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
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## [18:03:40] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:03:44] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:44] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:44] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:03:47] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:47] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:47] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:03:51] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:51] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:03:55] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:55] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:03:55] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.2, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.2, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:03:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:03:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:04:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:04:01] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:04:01] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:04:01] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:04:03] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:03] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:03] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.3, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:04:04] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:04] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:04] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:04:06] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:04:06] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:06] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:04:07] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:04:07] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:04:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:04:09] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:09] WARNING: src/c api/c api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:09] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:04:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:04:12] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:12] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:12] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:04:15] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:04:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:04:17] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
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## [18:04:17] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:04:17] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:04:20] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:20] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:20] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:04:23] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:23] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:23] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:04:25] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:04:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:04:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:28] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:04:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:04:30] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:30] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:30] WARNING: src/c api/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:04:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:04:35] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:04:35] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:35] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:04:39] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:39] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:04:39] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:04:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:42] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold2: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:04:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:04:49] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:04:49] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
 \begin{tabular}{ll} ## [18:04:49] & WARNING: $$src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. \\ \end{tabular} 
## - Fold2: eta=0.3, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:04:52] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:52] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:04:52] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:04:55] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:55] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:04:55] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:05:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:05:03] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:03] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:03] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold2: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
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## [18:05:06] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:06] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:06] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold2: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:05:08] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:08] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## [18:05:08] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:05:09] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:09] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:09] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max depth=2, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:05:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:05:12] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:12] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:12] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:05:13] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:13] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:13] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:05:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:15] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:05:16] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:16] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:16] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:05:18] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:05:19] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:19] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:19] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:05:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:22] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max depth=4, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:05:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:05:27] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:27] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:27] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:05:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:29] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.1, max depth=4, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:05:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:05:34] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:34] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:34] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
```

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## + Fold3: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:05:37] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:37] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:37] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:05:40] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:40] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:05:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. ## [18:05:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:42] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:05:46] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:46] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:46] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:05:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:05:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:05:54] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:54] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:54] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:05:59] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:59] WARNING: src/c api/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:05:59] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:06:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:06:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
 \begin{tabular}{ll} ## [18:06:05] & WARNING: $$src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. \\ \end{tabular} 
## [18:06:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:06:10] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:10] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:10] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:06:14] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:14] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:14] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.1, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:06:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:06:20] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:20] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:20] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:06:21] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:21] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:21] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:06:23] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:23] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:23] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:06:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
```

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## - Fold3: eta=0.2, max depth=2, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:06:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=2, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:06:27] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:27] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:27] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:06:29] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:29] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:29] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.2, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:06:31] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:31] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:31] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:06:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:06:35] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:35] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:35] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:06:37] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:37] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:37] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.2, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:06:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
 \begin{tabular}{ll} \#\# & [18:06:43] \label{table:condition} \begin{tabular}{ll} WARNING: $$src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. \end{tabular} 
## [18:06:43] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:43] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:06:45] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:06:48] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:48] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:48] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.2, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:06:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:06:54] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:54] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:54] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:06:56] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:06:56] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:06:56] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:07:00] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:00] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:07:04] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:04] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
```

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## [18:07:04] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:07:06] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:06] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:06] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:07:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:07:14] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:14] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:14] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:07:18] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:18] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:18] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.2, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:07:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:07:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. ## [18:07:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:07:29] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:29] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.2, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:07:31] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:31] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:31] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.3, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:07:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:07:34] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:34] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:34] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:07:35] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:35] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:35] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:07:37] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:37] WARNING: src/c api/c api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:37] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:07:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:07:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:07:41] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:41] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:41] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:07:43] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
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## [18:07:43] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:43] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:07:46] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:46] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:46] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:07:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:07:51] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:07:54] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:54] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:07:54] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:07:56] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:56] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:56] WARNING: src/c api/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:07:59] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:59] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:07:59] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:08:02] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:08:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:08:04] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:04] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:08:04] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:08:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:07] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:08:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:08:14] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:08:14] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
 \begin{tabular}{ll} ## [18:08:14] WARNING: $$src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. \\ \end{tabular} 
## - Fold3: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:08:16] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:16] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:08:16] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:08:21] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:21] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:21] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:08:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:08:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
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## [18:08:32] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:08:32] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:08:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:08:35] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:08:35] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## [18:08:35] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold3: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold3: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:08:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:38] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold3: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:08:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max depth=2, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:08:41] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:08:41] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:41] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:08:43] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:08:43] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:08:43] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:08:44] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:44] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:44] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:08:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:08:47] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:08:47] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:47] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:08:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:48] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:08:48] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:08:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:50] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:08:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:08:54] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:08:54] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:54] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:08:57] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:57] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:57] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.1, max depth=4, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:08:59] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:59] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:08:59] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:09:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
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## + Fold4: eta=0.1, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:09:05] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:09:07] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:07] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:09:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:10] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:09:12] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:12] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:12] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:09:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:09:19] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:19] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:19] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:09:23] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:23] WARNING: src/c api/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:23] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:09:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:09:30] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
 \begin{tabular}{ll} ## [18:09:30] & WARNING: $$src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. \\ \end{tabular} 
## [18:09:30] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:09:33] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:33] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:33] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.1, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:09:37] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:37] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:37] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:09:41] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:41] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:41] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:09:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:09:48] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:48] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:48] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:09:50] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:50] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:50] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:09:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
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## - Fold4: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:09:53] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:53] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:53] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=2, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:09:54] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:54] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:54] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:09:56] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:56] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:09:56] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:09:57] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:57] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:57] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max depth=2, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:09:59] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:59] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:09:59] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:10:00] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:10:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:02] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:02] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.2, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:10:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
 \begin{tabular}{ll} \#\# & [18:10:07] & WARNING: & src/c\_api/c\_api.cc:935: `ntree\_limit` is deprecated, use `iteration\_range` instead. \\ \end{tabular} 
## [18:10:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:10:09] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:09] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:09] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:10:12] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:12] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:12] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.2, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:10:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:10:17] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:17] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:17] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:10:20] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:20] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:20] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:10:23] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:23] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:23] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:10:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
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## [18:10:25] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:10:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:10:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:10:34] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:34] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:34] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:10:39] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:39] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:39] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.2, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:10:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:10:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:10:50] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:50] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:10:53] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:53] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:53] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.2, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.2, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:10:57] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:57] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:57] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:10:58] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:10:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:10:58] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:11:00] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:11:00] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:11:00] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:11:01] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:01] WARNING: src/c api/c api/cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:01] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.3, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:11:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:11:04] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:04] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:04] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:11:05] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:11:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:11:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
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## [18:11:07] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:11:07] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:11:08] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:08] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:08] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:11:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:11:13] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:11:13] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:13] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:11:16] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:16] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:11:16] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:11:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:18] WARNING: src/c api/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:11:21] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:21] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:21] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:11:24] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:11:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:11:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:26] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:11:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:11:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:29] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:11:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:11:34] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:11:34] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:11:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:38] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:11:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:11:41] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:41] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:41] WARNING: src/c_api/c_api/cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:11:44] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:44] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:44] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:11:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
```

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## [18:11:51] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:11:51] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:11:51] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:11:54] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:11:54] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## [18:11:54] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold4: eta=0.3, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:11:59] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:59] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:11:59] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:12:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold4: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:12:06] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:06] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:06] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold4: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:12:07] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:07] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:07] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:12:09] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:09] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:09] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.1, max depth=2, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:12:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:12:12] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:12] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:12] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:12:13] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:13] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:13] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.1, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:12:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:15] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:15] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.1, max_depth=2, gamma=3, colsample_bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:12:16] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:16] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:16] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:12:18] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:18] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:12:19] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:19] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:19] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.1, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:12:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:12:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
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## + Fold5: eta=0.1, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:12:27] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:27] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:27] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max depth=4, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:12:30] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:30] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:30] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:12:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:33] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.1, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:12:35] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:35] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:35] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:12:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:38] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:12:41] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:41] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:41] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:12:43] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:43] WARNING: src/c api/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:43] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.1, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:12:47] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:47] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:12:47] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:12:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
 \begin{tabular}{ll} ## [18:12:50] & WARNING: $$src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. \\ \end{tabular} 
## [18:12:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:12:53] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:53] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:53] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.1, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:12:58] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:58] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:12:58] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:13:01] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:01] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:01] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:13:04] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:04] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:04] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.1, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:13:09] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:09] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:09] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:13:12] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:12] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:12] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.1, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:13:16] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:16] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:16] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
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## - Fold5: eta=0.1, max depth=6, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:13:17] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:17] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:17] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:13:19] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:19] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:19] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:13:20] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:20] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:20] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.2, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:13:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:22] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max depth=2, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:13:23] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:23] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:23] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max depth=2, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=2, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:13:25] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:13:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:26] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:26] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.2, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:13:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
 \begin{tabular}{ll} ## [18:13:29] & WARNING: $$src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. \\ \end{tabular} 
## [18:13:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:29] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:13:32] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:32] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:32] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:13:34] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:34] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:34] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.2, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:13:37] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:37] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:37] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:13:39] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:39] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:39] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:13:42] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:42] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:13:44] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:44] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:44] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:13:47] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:47] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
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## [18:13:47] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:13:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:13:52] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:52] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:13:52] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:13:57] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:57] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:13:57] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:14:00] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:00] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:00] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.2, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:14:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:02] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max depth=6, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:14:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. ## [18:14:07] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:14:10] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:10] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:10] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:14:13] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:13] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:13] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.2, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:14:17] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:17] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:17] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:14:21] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:21] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:21] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.2, max depth=6, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:14:24] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:24] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:24] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.2, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:14:25] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:25] WARNING: src/c api/c api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:25] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.3, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=2, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:14:27] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:27] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:27] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:14:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:28] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max depth=2, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:14:30] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:30] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:30] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:14:31] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
```

```
## [18:14:31] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:31] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=2, gamma=3, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:14:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:33] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max depth=2, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:14:34] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:34] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:34] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:14:35] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:35] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:36] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max depth=2, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:14:37] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:37] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:37] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max_depth=2, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:14:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:40] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:40] WARNING: src/c api/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=4, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:14:43] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:43] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:43] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:14:45] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:45] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max depth=4, gamma=1, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:14:47] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:47] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:48] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max_depth=4, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:14:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:50] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:50] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:14:53] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:53] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:53] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max depth=4, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:14:55] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:55] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
 \begin{tabular}{ll} ## [18:14:55] & WARNING: $$src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead. \end{tabular} 
## - Fold5: eta=0.3, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:14:59] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:14:59] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:14:59] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=4, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:15:01] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:01] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:01] WARNING: src/c_api/c_api/cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max depth=4, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:15:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:05] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max depth=6, gamma=1, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:15:08] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:08] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:08] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
```

```
## [18:15:11] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:15:11] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:15:11] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max_depth=6, gamma=1, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=2, subsample=0.5, nrounds=500
## [18:15:15] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:15:15] WARNING: src/c api/c api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:15] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.3, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=6, gamma=3, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## [18:15:19] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:19] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:19] WARNING: src/c api/c api/cc:935: `ntree limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## [18:15:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:22] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max depth=6, gamma=3, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## [18:15:26] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:15:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:26] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=2, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=5, subsample=0.5, nrounds=500
## [18:15:30] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:15:30] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## [18:15:30] WARNING: src/c api/c api.cc:935: `ntree limit` is deprecated, use `iteration range` instead.
## - Fold5: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=5, subsample=0.5, nrounds=500
## + Fold5: eta=0.3, max_depth=6, gamma=5, colsample_bytree=0.5, min_child_weight=7, subsample=0.5, nrounds=500
## [18:15:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## [18:15:33] WARNING: src/c_api/c_api.cc:935: `ntree_limit` is deprecated, use `iteration_range` instead.
## - Fold5: eta=0.3, max depth=6, gamma=5, colsample bytree=0.5, min child weight=7, subsample=0.5, nrounds=500
## Aggregating results
## Selecting tuning parameters
## Fitting nrounds = 500, max depth = 4, eta = 0.3, gamma = 1, colsample bytree = 0.5, min child weight = 2, subs
ample = 0.5 on full training set
```

```
# best tune
xgb.tune$bestTune
```

```
## nrounds max_depth eta gamma colsample_bytree min_child_weight subsample
## 256 500 4 0.3 1 0.5 2 0.5
```

```
# writing out the best model
control.xgb <- trainControl(method = "none",</pre>
                             verboseIter = TRUE,
                             allowParallel = TRUE
)
# final grid with the best values
final.grid <- expand.grid(nrounds = xgb.tune$bestTune$nrounds,</pre>
                           max depth = xqb.tune$bestTune$max depth,
                           gamma = xgb.tune$bestTune$gamma,
                           colsample bytree = xgb.tune$bestTune$colsample bytree,
                           min_child_weight = xgb.tune$bestTune$min_child_weight,
                           subsample = xgb.tune$bestTune$subsample,
                           eta = xgb.tune$bestTune$eta)
# building the model with the best parameters
xgb.model <- train(</pre>
  x = train[, -12],
  y = train[, 12],
  trControl = control.xgb,
  tuneGrid = final.grid,
  method = "xgbTree",
  verbose = TRUE
)
```

```
## Fitting nrounds = 500, max_depth = 4, gamma = 1, colsample_bytree = 0.5, min_child_weight = 2, subsample = 0.5
, eta = 0.3 on full training set
```

```
# predictions
xgb.preds <- predict(xgb.model, test)
# confusion matrix
confusionMatrix(xgb.preds, test$taste)</pre>
```

```
## Confusion Matrix and Statistics
##
##
            Reference
## Prediction bad good normal
##
             0 0
      bad
                        1
              0 22
                         7
##
      good
##
      normal 13 21
                        256
##
## Overall Statistics
##
##
                 Accuracy : 0.8688
##
                  95% CI: (0.8268, 0.9037)
##
      No Information Rate : 0.825
##
      P-Value [Acc > NIR] : 0.02067
##
                   Kappa : 0.4532
##
##
## Mcnemar's Test P-Value : NA
##
## Statistics by Class:
##
##
                      Class: bad Class: good Class: normal
## Sensitivity
                        0.000000 0.51163
                                                  0.9697
## Specificity
                        0.996743
                                    0.97473
                                                  0.3929
## Pos Pred Value
                      0.000000
                                  0.75862
                                                  0.8828
                      0.959248 0.92784
## Neg Pred Value
                                                  0.7333
## Prevalence
                        0.040625
                                    0.13437
                                                  0.8250
## Detection Rate
                        0.000000
                                    0.06875
                                                  0.8000
## Detection Prevalence 0.003125
                                    0.09062
                                                  0.9062
                                   0.74318
## Balanced Accuracy
                        0.498371
                                                  0.6813
```