CV Comparison Plots

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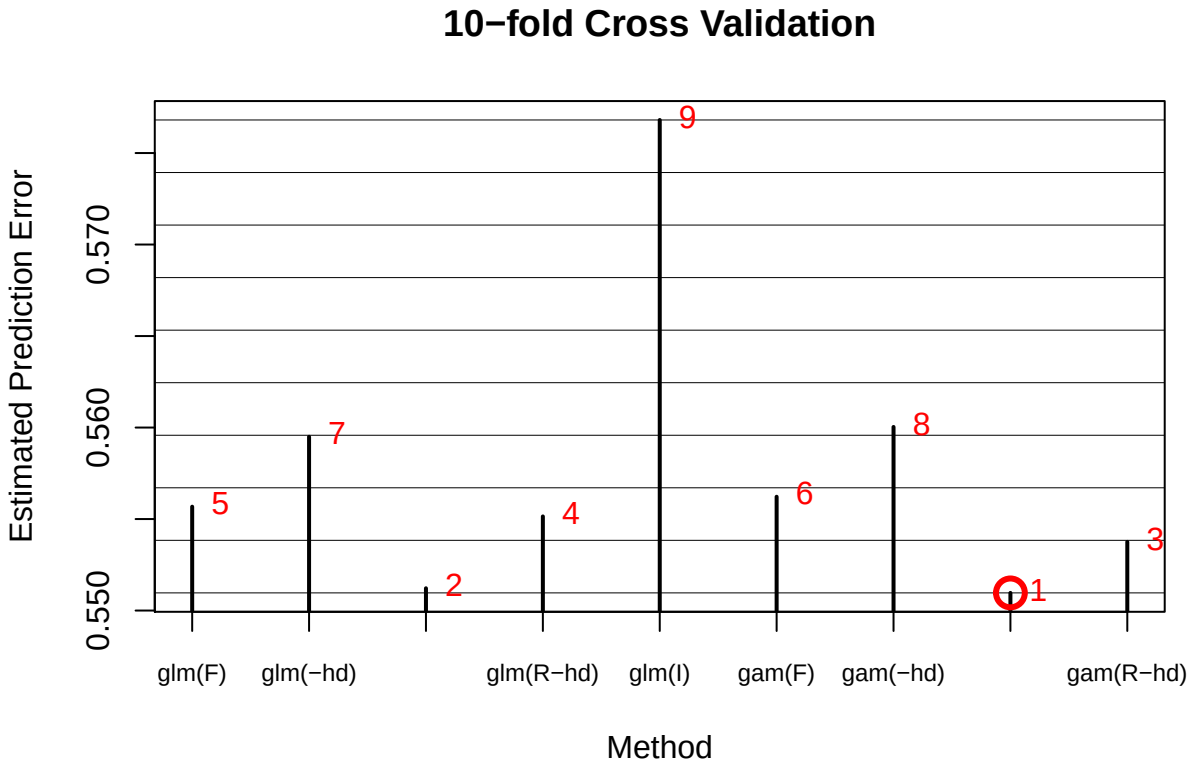
```
# 1) GLM results:
# Call:
# 10-fold Cross Validation
#
# Est. Opt. Method: glm(R-F)
# Est. mspe:        0.551
# Time Spent:       0.889 mins
# > outCV
# $mspe
#                  method      mspe
# method=glm(F)         1 0.5556768
# method=glm(-hd)       2 0.5594973
# method=glm(R-F)       3 0.5512195
# method=glm(R-hd)      4 0.5551445
# method=glm(I)         5 0.5768067
#
# $opt
# [1] "glm(R-F)"
#
#
#
# 2) GAM results:
# Call:
# 10-fold Cross Validation
#
# Est. Opt. Method: gam(R-F)
# Est. mspe:        0.551
# Time Spent:       14.733 mins
# > outCV
# $mspe
#                  method      mspe
# method=gam(F)         1 0.5562196
# method=gam(-hd)       2 0.5600337
# method=gam(R-F)       3 0.5509658
# method=gam(R-hd)      4 0.5537546
#
#
# 3) rf results:
# Call:
# 10-fold Cross Validation
#
# Est. Opt. Method: rf(Opt)
# Est. mspe:        0.551
# Time Spent:       1.614 mins
#
# > outCV
# $mspe
#                method      mspe
```

```
# method=rf(Def)      1 0.5512463
# method=rf(Opt)      2 0.5508852
#
# $opt
# [1] "rf(Opt)"
#
# $opt
# [1] "gam(R-F)"
```

1st plot

```
#plot estimated prediction error
method  = c("glm(F)", "glm(-hd)", "glm(R-F)", "glm(R-hd)", "glm(I)",
           "gam(F)", "gam(-hd)", "gam(R-F)", "gam(R-hd)")
score = c(0.5556768, 0.5594973, 0.5512195, 0.5551445, 0.5768067, 0.5562196, 0.5600337,
          0.5509658,0.5537546)
I = which(score==min(score))
log=0
ylim = log(range(score)*c(1,1.0))*log+range(score)*c(1,1.0)*(1-log)

            plot(score, type="h", xlab="Method", ylab="Estimated Prediction Error",
                main="10-fold Cross Validation",
                lwd=2,xaxt="n",ylim=ylim)
            abline(h=seq(from=range(score)[1],to=range(score)[2],length=10),lwd=0.1)
            axis(1,at=1:length(method),method,las=1,cex.axis=0.745)
            points(I,score[I],col="red",pch=1,cex=2,lwd=3)
            text(1:length(score),score,rank(score),pos=4,col="red")
```



2nd plot

```
#plot estimated prediction error
method  = c("glm(R-F)", "gam(R-F)","rf(Opt)")
score = c(0.5512195, 0.5509658, 0.5508852)
I = which(score==min(score))
log=0
ylim = log(range(score)*c(1,1.0))*log+range(score)*c(1,1.0)*(1-log)

            plot(score, type="h", xlab="Method", ylab="Estimated Prediction Error",
                main="10-fold Cross Validation",
                lwd=2,xaxt="n",ylim=ylim)
            abline(h=seq(from=range(score)[1],to=range(score)[2],length=10),lwd=0.1)
            axis(1,at=1:length(method),method,las=1,cex.axis=0.85)
            points(I,score[I],col="red",pch=1,cex=2,lwd=3)
            text(1:length(score),score,rank(score),pos=4,col="red")
```