

```

## Load libraries
library(splines)
library(MASS)

##source functions
source("../functions.R")

alts <- c("alt_z_large", "alt_t_large")

for(alt in alts)
{
  print(alt)
  print("I")

  load(paste(alt, "simResults_1.RData", sep="/"))
  load(paste(alt, "simResults_pi0x_thresh_1.RData", sep="/"))
  load(paste(alt, "simResults_pi0x_Scott_emp_1.RData", sep="/"))
  load(paste(alt, "simResults_pi0x_Scott_1.RData", sep="/"))

  plotMeanPi0(pi0, pi0MeansVars, pi0hatScottMean, tme=tme)
  legend("topright", inset=c(-0.71,0),
        legend=c("Truth", expression(paste("SLR (", lambda, "=0.8)")),
                  expression(paste("SLR (", lambda, "=0.9)")),
                  "SLR (smoothed)", "SLR (Scott)"),
        col=c("black", "orange", "orange", "orange", "blue"), bty="n",
        lwd=c(8,2,2,3,3), lty=c(1,3,2,1,1),
        cex=1.2, x.intersp=0.2, y.intersp=1.0)

  #####

  print("II")

  load(paste(alt, "simResults_2.RData", sep="/"))
  load(paste(alt, "simResults_pi0x_thresh_2.RData", sep="/"))
  load(paste(alt, "simResults_pi0x_Scott_emp_2.RData", sep="/"))
  load(paste(alt, "simResults_pi0x_Scott_2.RData", sep="/"))

  plotMeanPi0(pi0, pi0Lin.MeansVars, pi0hatLin.ScottMean, tme=tme)
  legend("topright", inset=c(-0.71,0), ##x=-0.2, y=0.45, ##"bottomright", ##x=-100, y=0.3,
        legend=c("Truth",
                  expression(paste("SLR (", lambda, "=0.8)")),
                  expression(paste("SLR (", lambda, "=0.9)")),
                  "SLR (smoothed)",
                  "SLR (Scott)"),
        col=c("black",

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        rep("orange",3),
        "blue"),
    bty="n",
    lwd=c(8,2,2,3,3), lty=c(1,3,2,1,1),
    cex=1.2, x.intersp=0.2, y.intersp=1.0)

plotMeanPi0(pi0, pi0Spl.MeansVars, pi0hatSpl.ScottMean, tme=tme)
legend("topright", inset=c(-0.71,0),##x=-0.2, y=0.45,##"bottomright", ##x=-100, y=0.3,
    legend=c("Truth",
        expression(paste("B-splines, 3 df (", lambda, "=0.8)")),
        expression(paste("B-splines, 3 df (", lambda, "=0.9)")),
        "B-splines, 3 df (smoothed)",
        "B-splines, 3 df (Scott)"),
    col=c("black",
        rep("orange",3),
        "blue"),
    bty="n",
    lwd=c(8,2,2,3,3), lty=c(1,3,2,1,1),
    cex=1.2, x.intersp=0.2, y.intersp=1.0)

#####

print("III")

load(paste(alt,"simResults_3.RData",sep="/"))
load(paste(alt,"simResults_pi0x_thresh_3.RData",sep="/"))
load(paste(alt,"simResults_pi0x_Scott_emp_3.RData",sep="/"))
load(paste(alt,"simResults_pi0x_Scott_3.RData",sep="/"))

plotMeanPi0(pi0, pi0Lin.MeansVars, pi0hatLin.ScottMean, tme=tme)
legend("topright", inset=c(-0.71,0),##x=-0.2, y=0.45,##"bottomright", ##x=-100, y=0.3,
    legend=c("Truth",
        expression(paste("SLR (", lambda, "=0.8)")),
        expression(paste("SLR (", lambda, "=0.9)")),
        "SLR (smoothed)",
        "SLR (Scott)"),
    col=c("black",
        rep("orange",3),
        "blue"),
    bty="n",
    lwd=c(8,2,2,3,3), lty=c(1,3,2,1,1),
    cex=1.2, x.intersp=0.2, y.intersp=1.0)

plotMeanPi0(pi0, pi0Spl.MeansVars, pi0hatSpl.ScottMean, tme=tme)
legend("topright", inset=c(-0.71,0),##x=-0.2, y=0.45,##"bottomright", ##x=-100, y=0.3,

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        legend=c("Truth",
                  expression(paste("B-splines, 3 df (", lambda, "=0.8)")),
                  expression(paste("B-splines, 3 df (", lambda, "=0.9)")),
                  "B-splines, 3 df (smoothed)",
                  "B-splines, 3 df (Scott)"),
        col=c("black",
              rep("orange",3),
              "blue"),
        bty="n",
        lwd=c(8,2,2,3,3), lty=c(1,3,2,1,1),
        cex=1.2, x.intersp=0.2, y.intersp=1.0)

#####

print("IV")

load(paste(alt,"simResults_4.RData",sep="/"))
load(paste(alt,"simResults_pi0x_thresh_4.RData",sep="/"))
load(paste(alt,"simResults_pi0x_Scott_emp_4.RData",sep="/"))
load(paste(alt,"simResults_pi0x_Scott_4.RData",sep="/"))

plotMeanPi0(pi0, pi0Lin.MeansVars, pi0hatLin.ScottMean, tme=tme)
legend("topright", inset=c(-0.71,0),##x=-0.2, y=0.45,##"bottomright", ##x=-100, y=0.3,
       legend=c("Truth",
                 expression(paste("SLR (", lambda, "=0.8)")),
                 expression(paste("SLR (", lambda, "=0.9)")),
                 "SLR (smoothed)",
                 "SLR (Scott)"),
       col=c("black",
             rep("orange",3),
             "blue"),
       bty="n",
       lwd=c(8,2,2,3,3), lty=c(1,3,2,1,1),
       cex=1.2, x.intersp=0.2, y.intersp=1.0)

plotMeanPi0(pi0, pi0Spl.MeansVars, pi0hatSpl.ScottMean, tme=tme)
legend("topright", inset=c(-0.71,0),##x=-0.2, y=0.45,##"bottomright", ##x=-100, y=0.3,
       legend=c("Truth",
                 expression(paste("B-splines, 3 df (", lambda, "=0.8)")),
                 expression(paste("B-splines, 3 df (", lambda, "=0.9)")),
                 "B-splines, 3 df (smoothed)",
                 "B-splines, 3 df (Scott)"),
       col=c("black",
             rep("orange",3),
             "blue"),

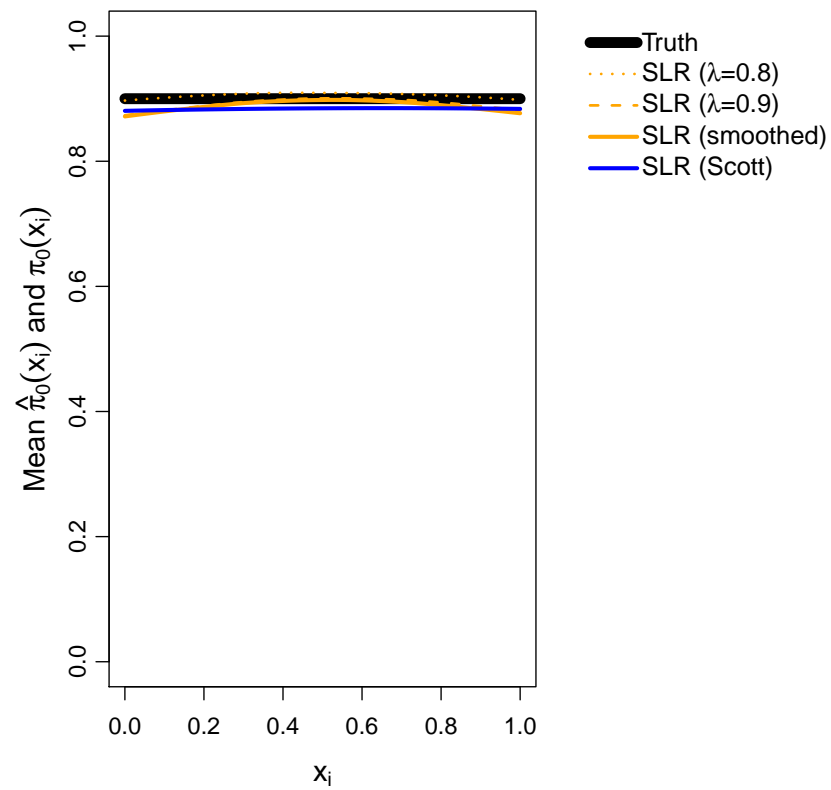
```

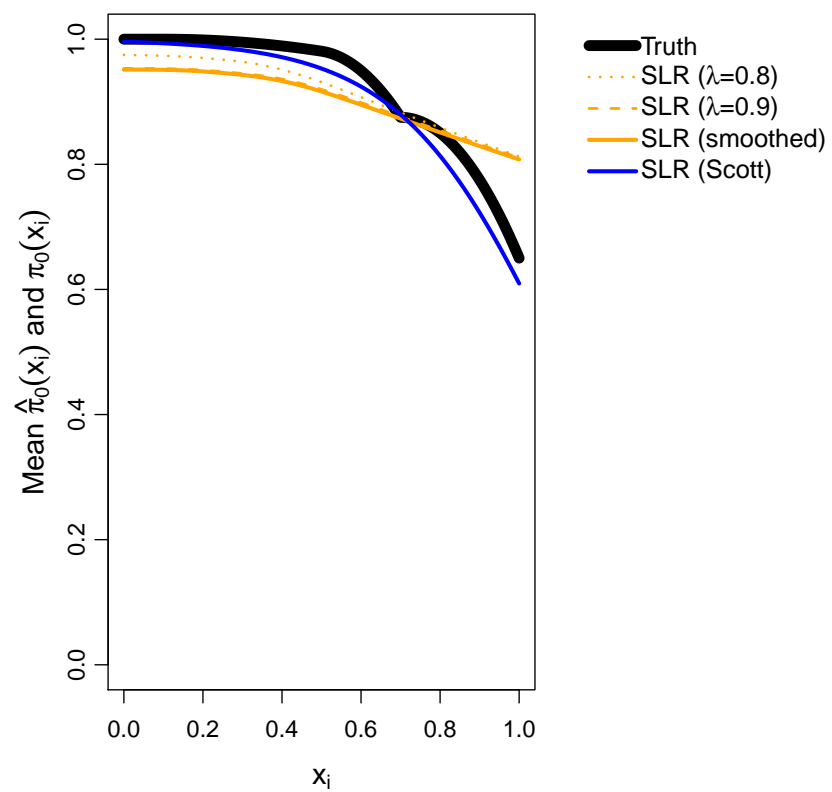
```

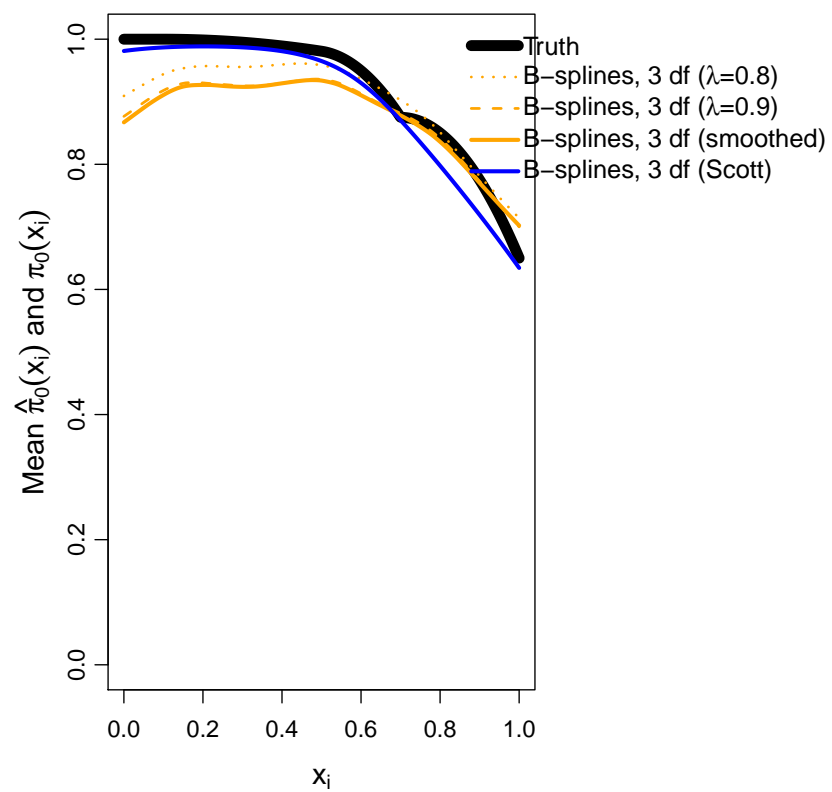
    bty="n",
    lwd=c(8,2,2,3,3), lty=c(1,3,2,1,1),
    cex=1.2, x.intersp=0.2, y.intersp=1.0)
}

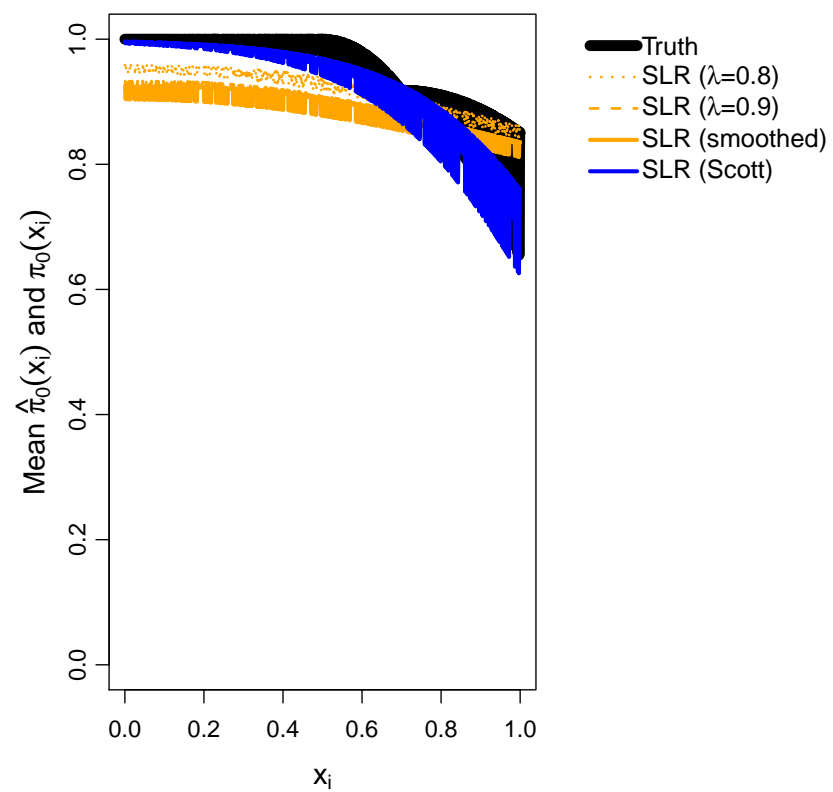
## [1] "alt_z_large"
## [1] "I"
## [1] "II"
## [1] "III"
## [1] "IV"
## [1] "alt_t_large"
## [1] "I"
## [1] "II"
## [1] "III"
## [1] "IV"

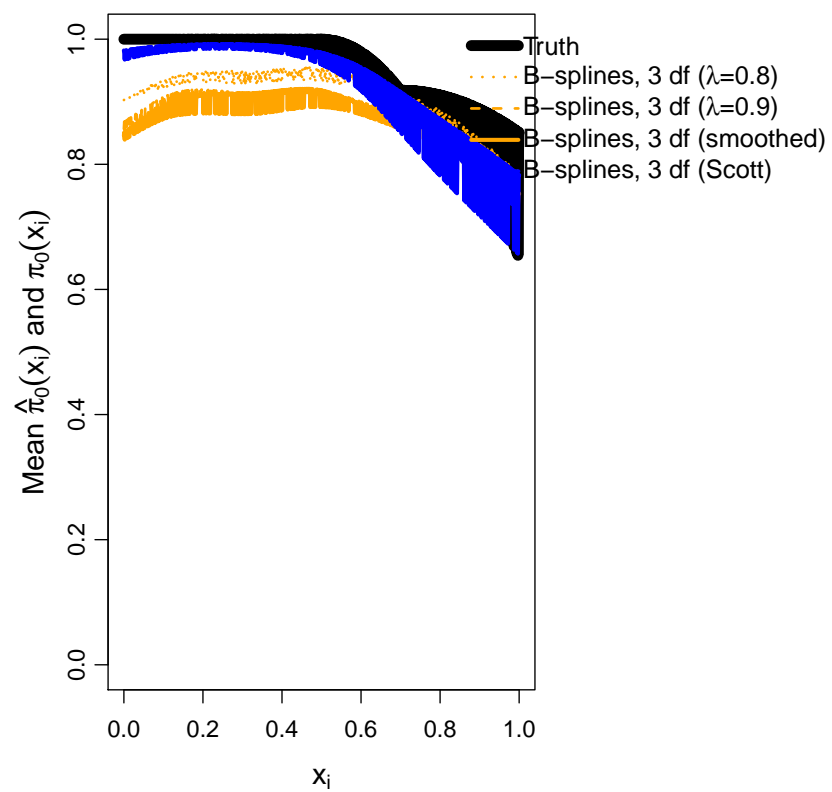
```



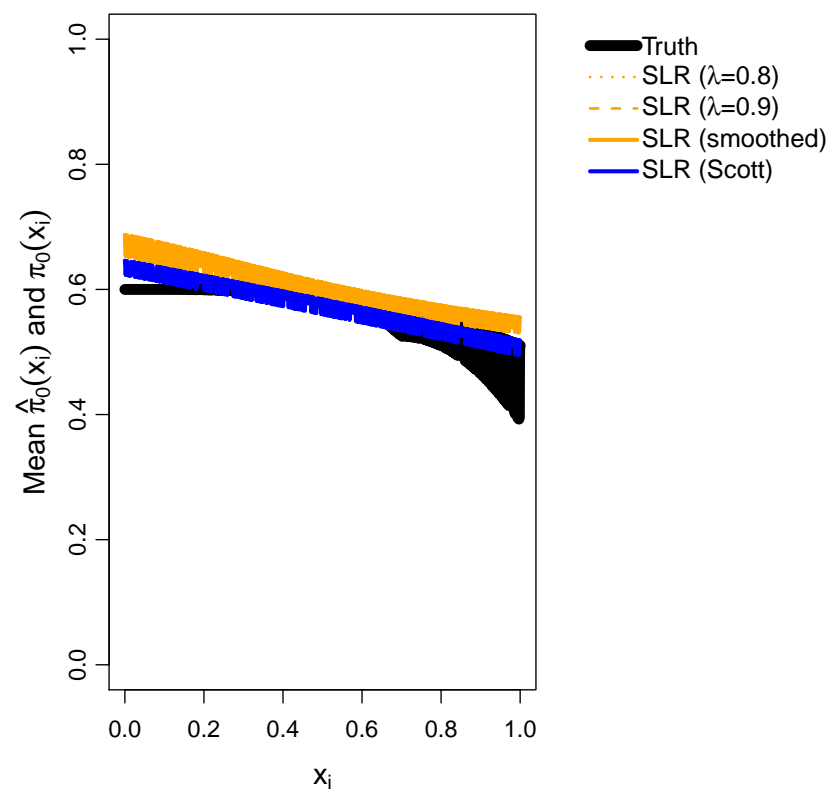


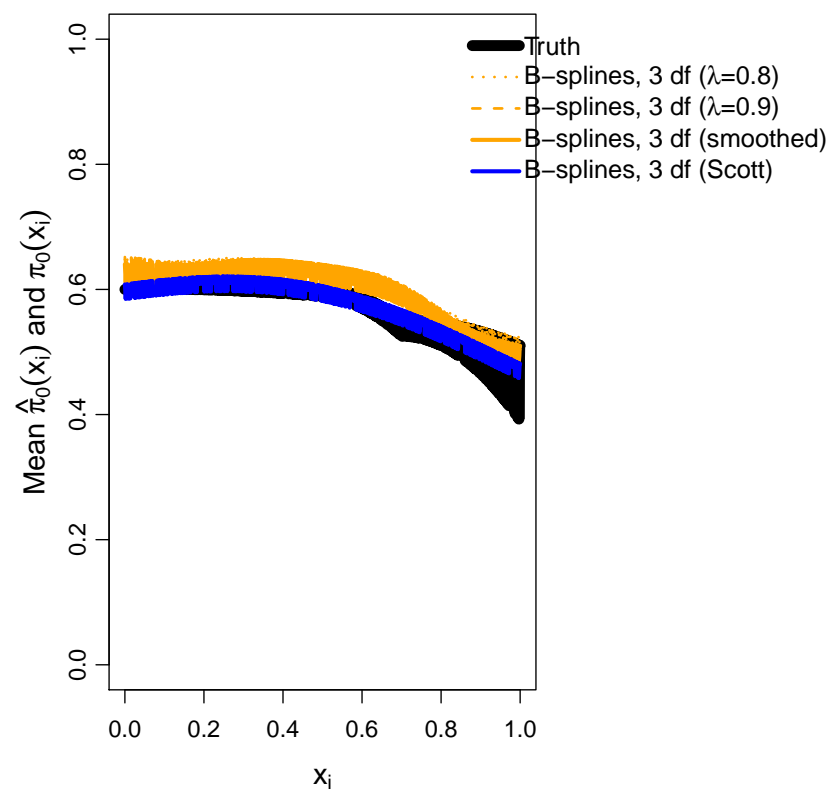


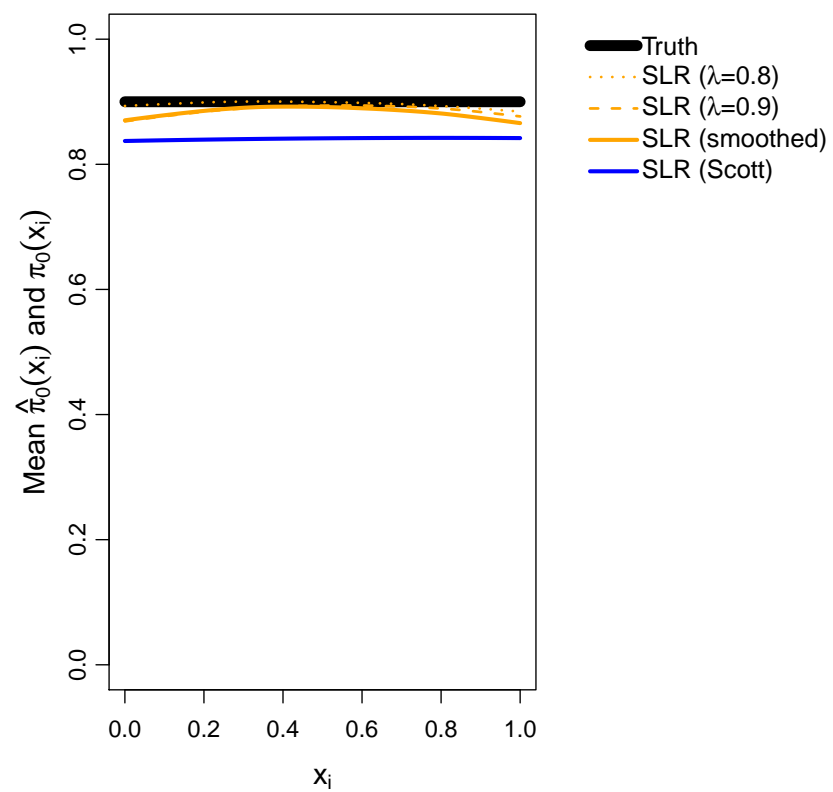


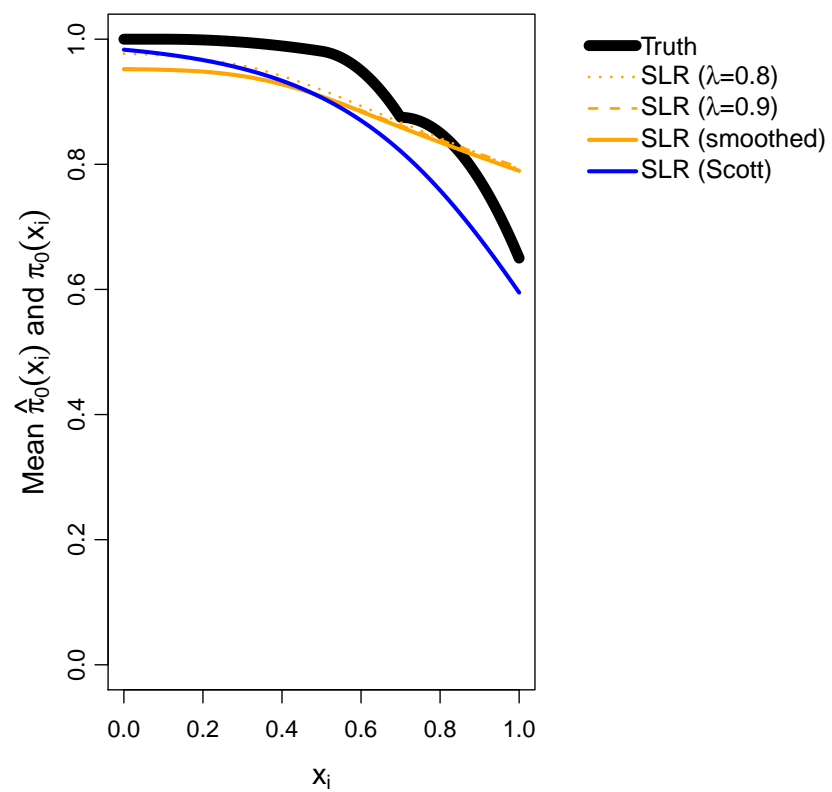


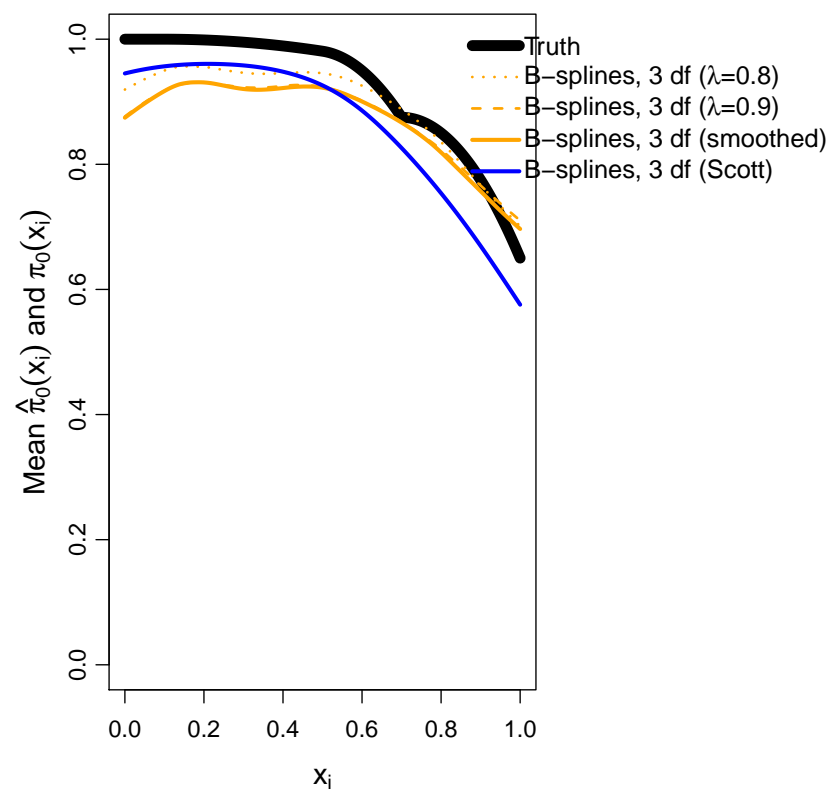


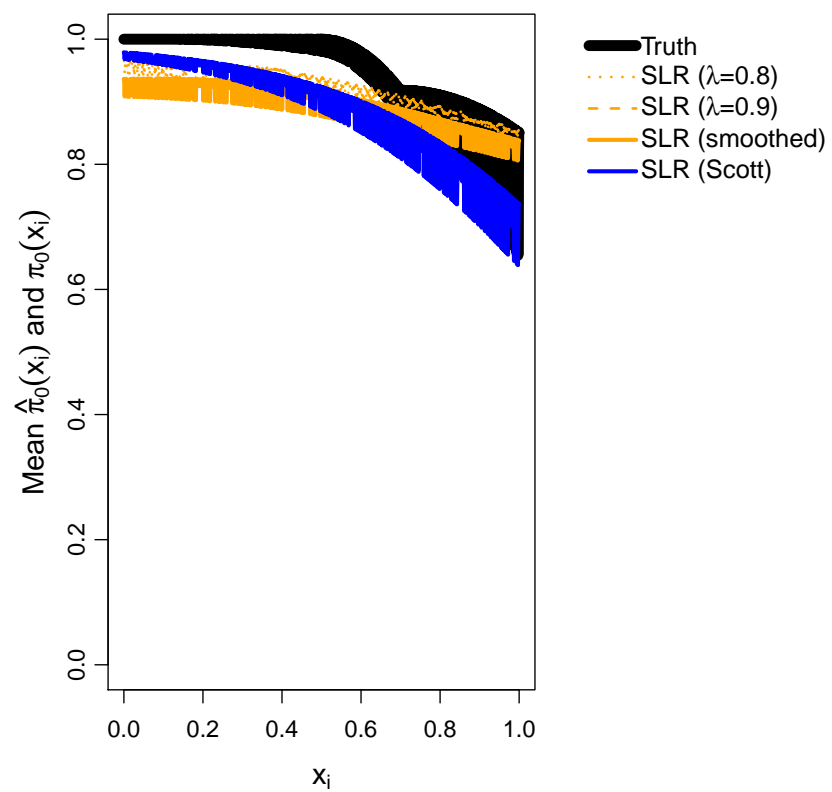


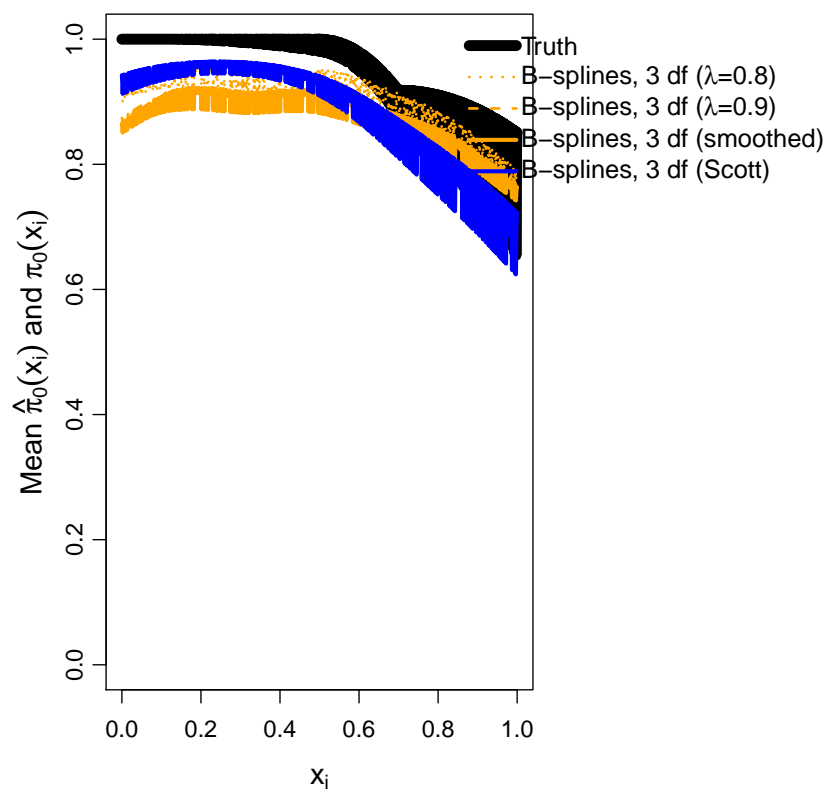


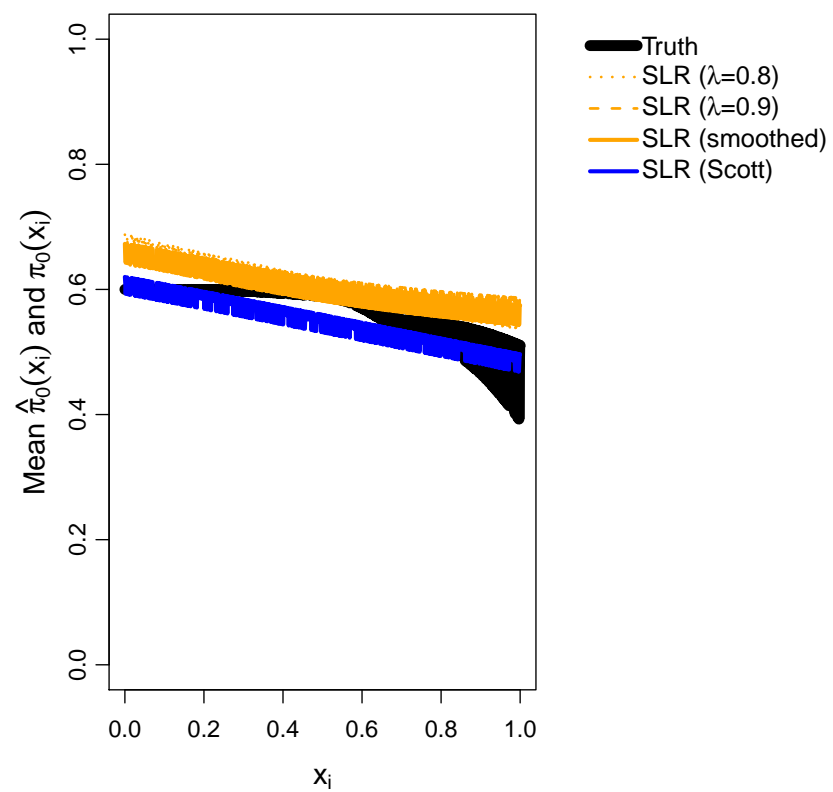




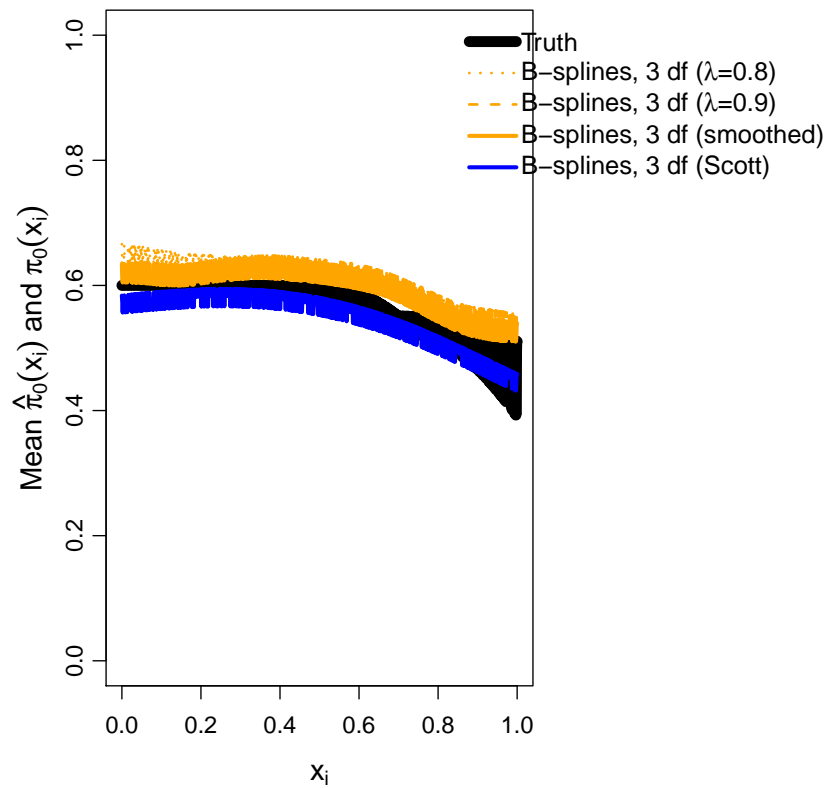












Session info:

```
devtools::session_info()

## Session info -----
## setting      value
## version      R version 3.3.1 (2016-06-21)
## system        x86_64, mingw32
## ui            RTerm
## language      (EN)
## collate       English_United States.1252
## tz            America/New_York
## date          2017-06-16

## Packages -----
## package * version date          source
```

##	devtools	1.12.0	2016-06-24	CRAN	(R 3.3.3)
##	digest	0.6.9	2016-01-08	CRAN	(R 3.3.1)
##	evaluate	0.10	2016-10-11	CRAN	(R 3.3.1)
##	highr	0.6	2016-05-09	CRAN	(R 3.3.1)
##	knitr	* 1.15.1	2016-11-22	CRAN	(R 3.3.1)
##	magrittr	1.5	2014-11-22	CRAN	(R 3.3.1)
##	MASS	* 7.3-45	2016-04-21	CRAN	(R 3.3.1)
##	memoise	1.0.0	2016-01-29	CRAN	(R 3.3.1)
##	stringi	1.1.1	2016-05-27	CRAN	(R 3.3.0)
##	stringr	1.0.0	2015-04-30	CRAN	(R 3.3.1)
##	withr	1.0.2	2016-06-20	CRAN	(R 3.3.1)