Section 3.4.3 - Optical Filter

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```
#####################
# Setup

# Loading allocation results
load(file="results/allocations_OF.RData")

# Plotting colors
coul <- brewer.pal(8, "Dark2")
coul[3]="cornflowerblue"

names = c(expression(I[1]),
          expression(I[2]),
          expression(I[3]),
          expression(I[4]),
          expression(I[5]),
          expression(I[6]),
          expression(I[7]),
          expression(I[8]),
          expression(I[9]),
          expression(I[10]),
          expression(I[11]),
          expression(I[12]),
          expression(I[13]))
```

```
error.bar <- function(x, y, upper, lower=upper, length=0.1,...){
  arrows(x,upper, x, lower, angle=90, code=3, length=length, ...)
}

par(mar=c(5,4.5,1,1),
    mfrow=c(1,2))
coul <- brewer.pal(8, "Dark2")

a=barplot(height=c(Shap.OF$Shap),
        names=names,
        col=coul,
        ylim=c(0,.3),
        ylab="Shapley effects",
        cex.lab=1,
        cex.names=1,
        xaxt="n",
        border=F)
error.bar(a, Shap.OF$Shap, upper=Shap.OF$conf_int$`max. c.i.`,
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```
          lower=Shap.OF$conf_int$`min. c.i.`)
text(a, par("usr")[3], labels = names,  adj = c(.4,1.1), xpd = TRUE, cex=1)
perc<-paste(round(Shap.OF$Shap*100, 1), "%", sep="")
text(a, par("usr")[3]+.4, y=(Shap.OF$conf_int$`max. c.i.`+0.015), labels = perc, xpd = TRUE, cex=0.9)

b=barplot(height=c(PME.OF$PME),
        names=names,
        col=coul,
        ylim=c(0,.3),
        ylab="PME",
        cex.lab=1,
        cex.names=1,
        xaxt="n",
        border=F)
error.bar(b, PME.OF$PME, upper=PME.OF$conf_int$`max. c.i.`,
          lower=PME.OF$conf_int$`min. c.i.`)
text(b, par("usr")[3], labels = names, adj = c(0.4,1.1), xpd = TRUE, cex=1)
perc<-paste(round(PME.OF$PME*100, 1), "%", sep="")
text(b, par("usr")[3]+.4, y=(PME.OF$conf_int$`max. c.i.`+0.015), labels = perc, xpd = TRUE, cex=0.9)
```