NDMG Comparison

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```
library(ggplot2)
library(grid)
library(gridExtra)
library(reshape2)
library(data.table)
```

```
##
## Attaching package: 'data.table'
```

```
## The following objects are masked from 'package:reshape2':
##
##     dcast, melt
```

Loading

```
ndmg.dwi.adj = as.matrix(read.csv('./ndmg-dwi.csv', sep=" ", header=FALSE))
derek.dwi.adj = as.matrix(read.csv('./derek-dwi.csv', sep=" ", header=FALSE))
ndmg.func.adj = as.matrix(read.csv('./ndmg-func.csv', sep=" ", header=FALSE))
colnames(ndmg.dwi.adj) <- as.character(seq(1, dim(ndmg.dwi.adj)[1]))
colnames(derek.dwi.adj) <- as.character(seq(1, dim(derek.dwi.adj)[1]))
colnames(ndmg.func.adj) <- as.character(seq(1, dim(ndmg.func.adj)[1]))
```

```
ndmg.dwi.dat <- melt(ndmg.dwi.adj)
derek.dwi.dat <- melt(derek.dwi.adj)
ndmg.func.dat <- melt(ndmg.func.adj)
```

Plotting

```
titles=list("NDMG Diffusion", "Probabilistic Diffusion", "NDMG Functional")
mtxs = list(ndmg.dwi.dat, derek.dwi.dat, ndmg.func.dat)
plots = lapply(1:length(mtxs), function(i) {
  mtx = mtxs[[i]]
  ggplot(mtx, aes(x=Var1, y=Var2, fill=value)) +
    geom_tile() +
    scale_y_reverse() +
    xlab("ROI") +
    ylab("ROI") +
    ggtitle(titles[[i]]) +
    scale_fill_gradient(name="Connectivity", low="white", high="blue") +
    theme_bw()
})
```

```
sim_leg <- g_legend(plots[[1]])
plots <- lapply(1:length(plots), function(i) {
```

```
  if (i != 1) {
    plots[[i]] <- plots[[i]] + theme(legend.position=NaN,
        axis.text.y=element_text(colour = 'white'),
        axis.ticks.y=element_line(colour = 'white'),
        axis.title.x=element_text(colour = 'white'),
        axis.title.y=element_text(colour = 'white'),
        axis.text.x=element_text(colour = 'white'),
        axis.ticks.x=element_line(colour = 'white'))
  }
  plots[[i]] <- plots[[i]] + guides(fill=FALSE)
})

grid.arrange(arrangeGrob(grobs=plots, nrow=2), sim_leg, ncol=2, widths=c(0.9, 0.2))
```