Surrogate Optimization: Sequential Design

BIOE 498/598 PJ

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Helper functions for optimization

By default, the optimizers in R *minimize* functions, so we negate the mean and SD to find *maxima*.

```
library(laGP)

neg_mean <- function(x,gp) {
  -predGP(gp, matrix(x,nrow=1), lite=TRUE)$mean
}

neg_sd <- function(x,gp) {
  -sqrt(predGP(gp, matrix(x,nrow=1), lite=TRUE)$s2)
}
```

The `lite=TRUE` tells `laGP` to not compute the entire covariance matrix, just the variance `s2`.