

hw2_kriging.R

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```
library(kriging)

## Warning: package 'kriging' was built under R version 3.5.3

library(rgl)

## Warning: package 'rgl' was built under R version 3.5.3

library(scatterplot3d)

## Warning: package 'scatterplot3d' was built under R version 3.5.2

library(plotly)

## Warning: package 'plotly' was built under R version 3.5.3

## Loading required package: ggplot2

##
## Attaching package: 'plotly'

## The following object is masked from 'package:ggplot2':
##
##   last_plot

## The following object is masked from 'package:stats':
##
##   filter

## The following object is masked from 'package:graphics':
##
##   layout

par(mfrow=c(1,2))
par(fig=c(0,0.5,0,1))

A<-matrix(scan("C:/Users/Pantazis/Desktop/Fall 2019/Comp Statistics (STAT705)/darwin.txt"),ncol=3, byrow=TRUE)

#exponential kriging
kriged<-kriging(A[,1],A[,2],A[,3],model= "exponential",lags=3,pixels=128)
pred<-matrix(unlist(kriged[6]),ncol = 3)

plot3d(x=pred[,1],y=pred[,2],z=pred[,3],col = "cyan")
points3d(x = pred[,1], y = pred[,2], z = pred[,3]) ##Points in space

lines3d(x = pred[,1], y = pred[,2], z = pred[,3])

plot_ly(x=pred[,1],y=pred[,2],z=pred[,3],type="contour")
```

