

```
### CASE SINGLE CAL EPISODE ###
```

```
#assumed analyzer noise based on scatter in Fig 5  
sdnoise = 0.025
```

```
x = c(354,399,445)  
y = 0.4+1.003*x + rnorm(length(x),sd = sdnoise)
```

```
summary(lm(x~y))
```

```
#Call:
```

```
#lm(formula = x ~ y)
```

```
#
```

```
#Residuals:
```

```
# 1 2 3
```

```
# 0.01737 -0.03441 0.01703
```

```
#
```

```
#Coefficients:
```

```
# Estimate Std. Error t value Pr(>|t|)
```

```
 #(Intercept) -0.3446257 0.2628629 -1.311 0.414828
```

```
 #y 0.9968688 0.0006528 1527.035 0.000417 ***
```

```
#---
```

```
#Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
#
```

```
#Residual standard error: 0.04214 on 1 degrees of freedom
```

```
#Multiple R-squared: 1, Adjusted R-squared: 1
```

```
#F-statistic: 2.332e+06 on 1 and 1 DF, p-value: 0.0004169
```

```
### CASE 120 DAY BOXCAR SMOOTHER ###
```

```
ncals = 24
```

```
x.x = rep(x,ncals)
```

```
y.x = 0.4+1.003*x.x + rnorm(length(ncals)*ncals,sd = sdnoise)
```

```
summary(lm(y.x~x.x))
```

```
#
```

```
#Call:
```

```
#lm(formula = y.x ~ x.x)
```

```
#
```

```
#Residuals:
```

```
# Min 1Q Median 3Q Max
```

```
 #-0.034680 -0.008449 0.002766 0.009923 0.030416
```

#Coefficients:

# Estimate Std. Error t value Pr(>|t|)

#(Intercept) 3.587e-01 2.157e-02 16.63 <2e-16 \*\*\*

#x.x 1.003e+00 5.377e-05 18654.18 <2e-16 \*\*\*

#---

#Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

#Residual standard error: 0.01695 on 70 degrees of freedom

#Multiple R-squared: 1, Adjusted R-squared: 1

#F-statistic: 3.48e+08 on 1 and 70 DF, p-value: < 2.2e-16