

```
In[23]:= SetDirectory["~white/Desktop"];
data = Import["frascati2.csv", "Data"];
Dimensions[data]
```

```
Out[25]= {2592, 2005}
```

```
In[26]:= Dimensions[data[[1]]]
```

```
Out[26]= {2005}
```

```
In[27]:= dt = data[[1, 3]]
```

```
Out[27]= 5. × 10-11
```

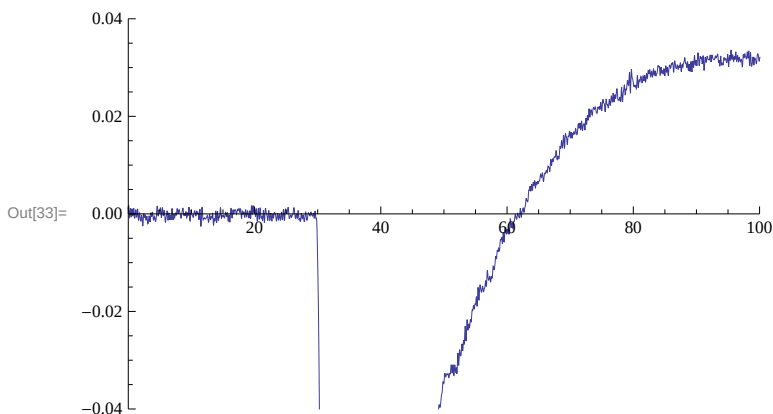
```
In[28]:= time = 109 × Table[dt (n - 4), {n, 4, 2005}];
Dimensions[time]
aa = Transpose[{time, Table[data[[1, n]], {n, 4, 2005}]}];
Dimensions[aa]
aa[[2, 1]]
```

```
Out[29]= {2002}
```

```
Out[31]= {2002, 2}
```

```
Out[32]= 0.05
```

```
In[33]:= ListPlot[Transpose[{time, Table[data[[1, n]], {n, 4, 2005}]}],
PlotRange → {{0, 100}, {-.04, .04}}, Joined → True]
```



```
In[34]:= time1 = 109 × Table[dt (n - 4), {n, 405, 804}];
time2 = Drop[time1, 100];
front = {}; back = {}; frontbase = {}; backbase = {};
frontnoise = {}; backnoise = {}; backpeak = {}; frontpeak = {};
Dimensions[time2]
```

```
Out[37]= {300}
```

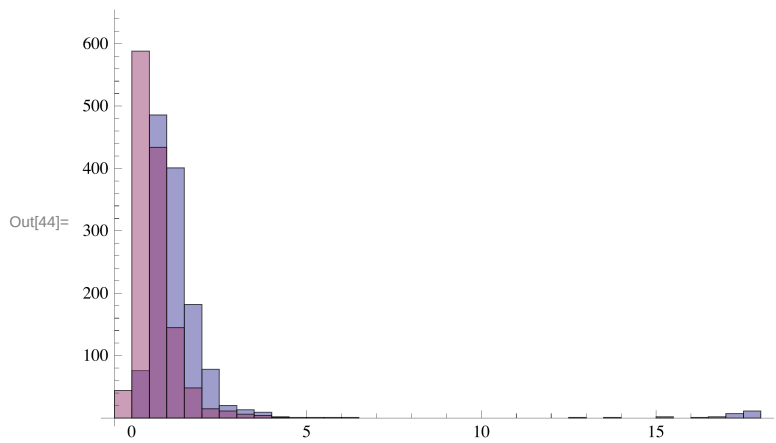
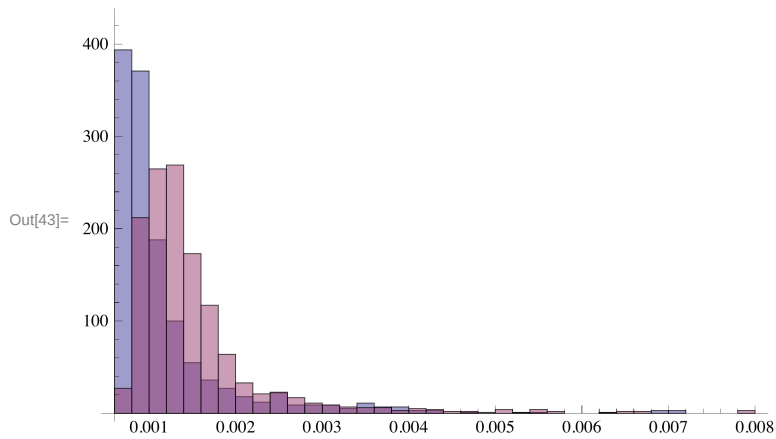
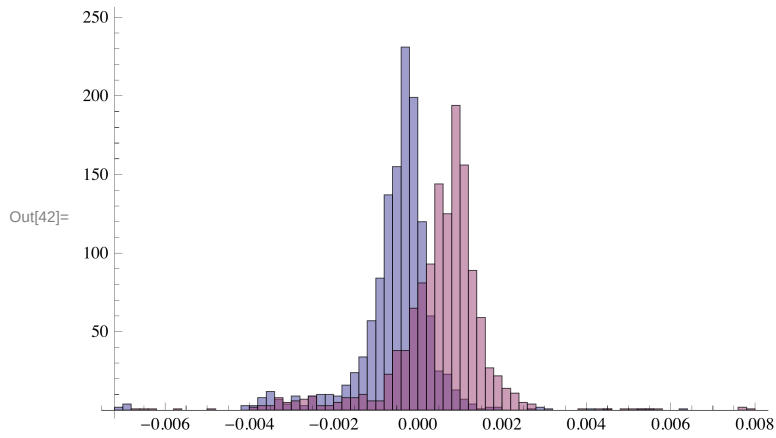
```
In[38]:= Do[
AppendTo[frontbase, Mean[Take[data[[2 * m - 1]], {5, 504}]]];
AppendTo[backbase, Mean[Take[data[[2 * m]], {5, 504}]]];
AppendTo[frontnoise, RootMeanSquare[Take[data[[2 * m - 1]], {5, 504}]]];
AppendTo[backnoise, RootMeanSquare[Take[data[[2 * m]], {5, 504}]]];
AppendTo[front, Take[data[[2 * m - 1]], {505, 804}] - frontbase[[m]]];
AppendTo[back, Take[data[[2 * m]], {505, 804}] - backbase[[m]]];
AppendTo[frontpeak, -Sum[front[[m, i]], {i, 300}]];
AppendTo[backpeak, -Sum[back[[m, i]], {i, 300}]];
, {m, 1296}]
Dimensions[frontbase]
Dimensions[frontnoise]
Dimensions[front]
```

```
Out[39]= {1296}
```

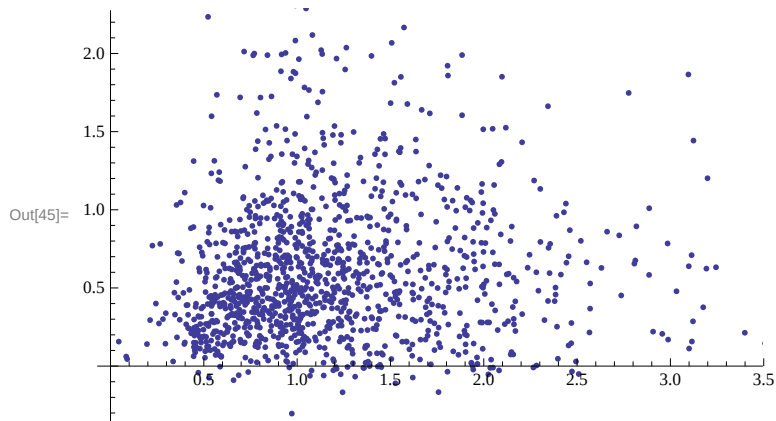
```
Out[40]= {1296}
```

```
Out[41]= {1296, 300}
```

```
In[42]:= Histogram[{frontbase, backbase}, PlotRange -> Full]  
Histogram[{frontnoise, backnoise}, PlotRange -> Full]  
Histogram[{frontpeak, backpeak}, PlotRange -> Full]
```



In[45]:= **ListPlot**[**Transpose**[{**frontpeak**, **backpeak**}]]



In[46]:= **Dimensions**[**time2**]
Dimensions[**front**]
Dimensions[**back**]

Out[46]= {300}

Out[47]= {1296, 300}

Out[48]= {1296, 300}

In[49]:= **Manipulate**[
ListPlot[{**Transpose**[{**time2**, **front**[**m**] + .02}], **Transpose**[{**time2**, -**back**[**m**] + .02}],
PlotRange → {{25, 40}, {-0.06, .1}}, **Joined** → **True**, **ImageSize** → **Large**], {**m**, 2, 1296, 1}]

Out[49]=

