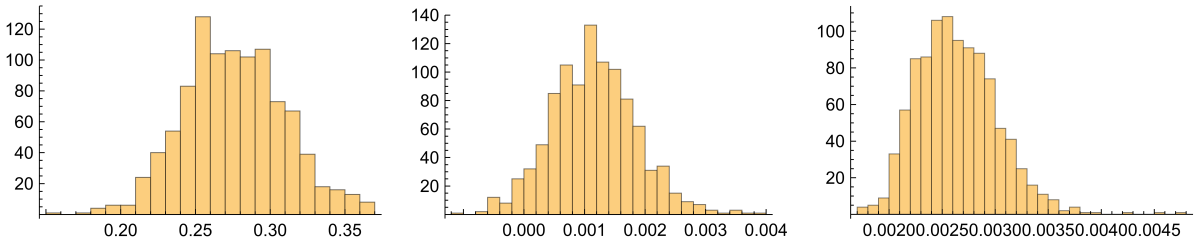
```
GraphicsRow[
 {Histogram[peak], Histogram[inbase2], Histogram[innoise2]}, ImageSize → Full]
```



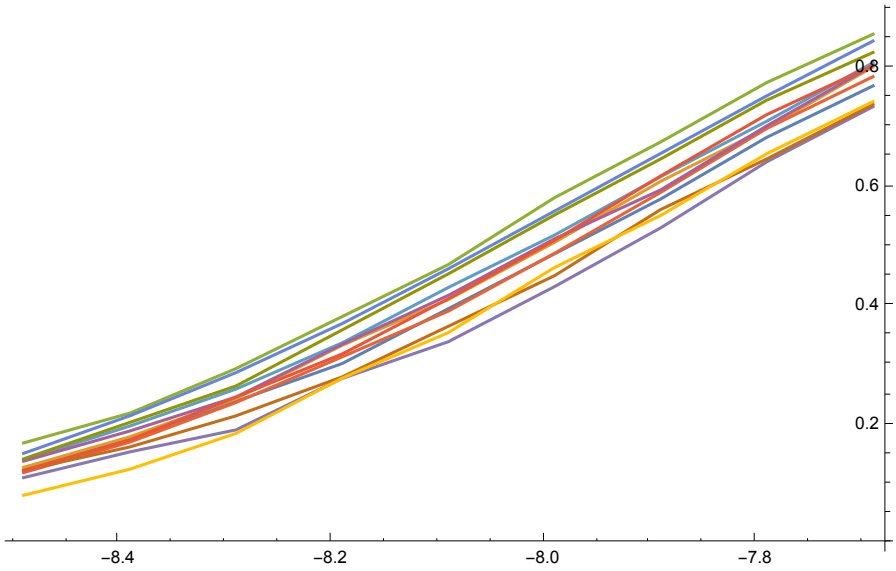

```
mp = Mean[peak]
rmsp = RootMeanSquare[peak - mp]
rmsp / mp
```

```
0.275898
```

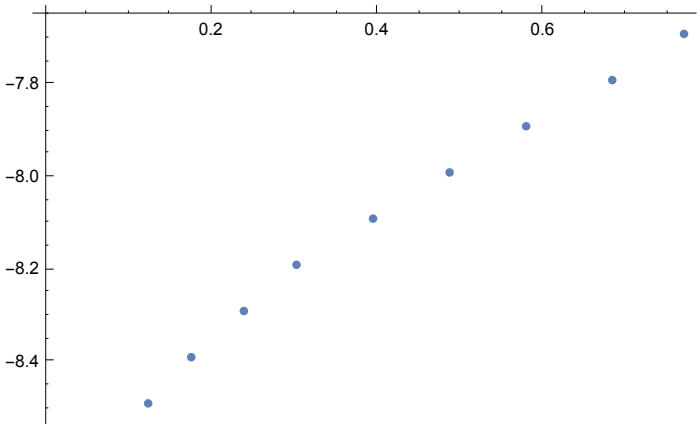
```
0.0337429
```

```
0.122302
```

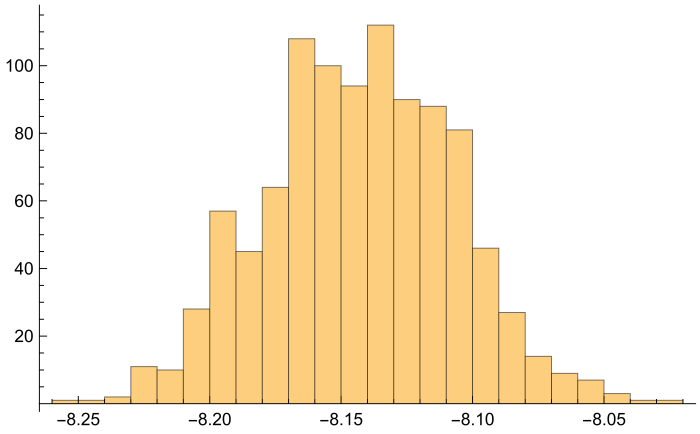
```
v0 = Table[v[[i]] / peak[[i]], {i, 1000}];

ttt = Take[tt, {181, 189}];

v01 = Table[Take[v0[[i]], {181, 189}], {i, 1000}];

ListPlot[{Transpose[{ttt, v01[[1]]}],
  Transpose[{ttt, v01[[2]]}], Transpose[{ttt, v01[[3]]}],
  Transpose[{ttt, v01[[4]]}], Transpose[{ttt, v01[[5]]}],
  Transpose[{ttt, v01[[6]]}], Transpose[{ttt, v01[[7]]}],
  Transpose[{ttt, v01[[8]]}], Transpose[{ttt, v01[[9]]}],
  Transpose[{ttt, v01[[10]]}], Transpose[{ttt, v01[[11]]}],
  Transpose[{ttt, v01[[12]]}]}, PlotRange → Full, Joined → True]
```



```
ListPlot[Transpose[{v01[[1]], ttt}]]
```




```
thresh = ConstantArray[0, 1000];
Do[
f = Interpolation[Transpose[{(v01[[i]] * (1 + RandomReal[{-.005, .005}])), ttt}]];
  thresh[[i]] = f[0.35];
  , {i, 1000}];

Transpose[{v01[[58]], ttt}];

Histogram[thresh, PlotRange → Full]
```




```
mn = Mean[thresh]
rms = RootMeanSquare[thresh - mn]
```

```
-8.14278
```

```
0.0358522
```

```
SetDirectory["~bastian/Desktop/day4/bulk/425-620x5/c3"];
Namelist = FileNames[];
Namelist // Length;
nfiles = %
```

```
1584
```

Fix misalignment between Micromegas files and Trigger PD.

```
vt = ConstantArray[0, {1000, 1000}];
Timing[Do[
    filename = Namelist[[i + 1]];
    scopedata = Import[filename, "tsv"];
    vt[[i]] = Table[scopedata[[i, 2]], {i, 6, 1005}];
    , {i, 1000}];]
```

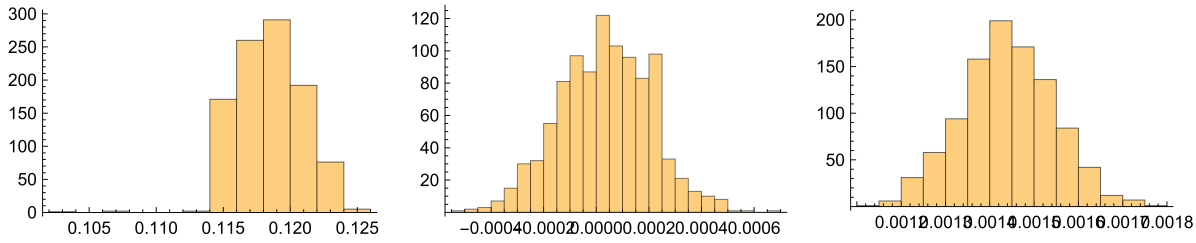
```
{17.7706, Null}
```

```
inbase2 = Table[Mean[Take[vt[[i]], 100]], {i, 1000}];
innoise2 = Table[RootMeanSquare[Take[vt[[i]], 100] - inbase2[[i]]], {i, 1000}];
```

```
vvt = Table[(vt[[i]] - inbase2[[i]]), {i, 1000}];
```

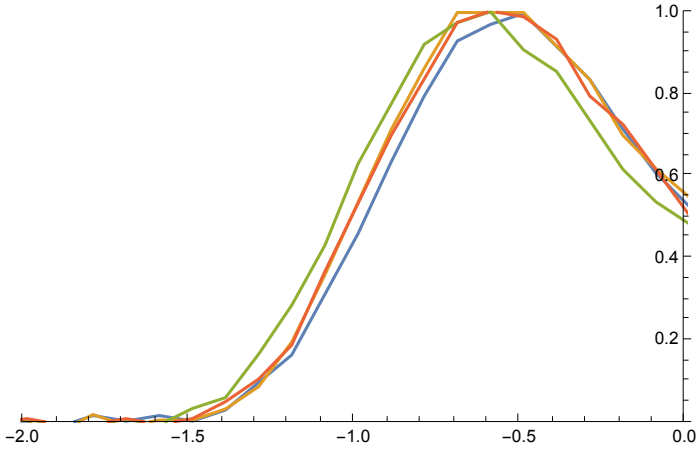
```
peak = Table[Max[vt[[i]]], {i, 1000}];
```

```
GraphicsRow[
 {Histogram[peak], Histogram[inbase2], Histogram[innoise2]}, ImageSize → Full]
```

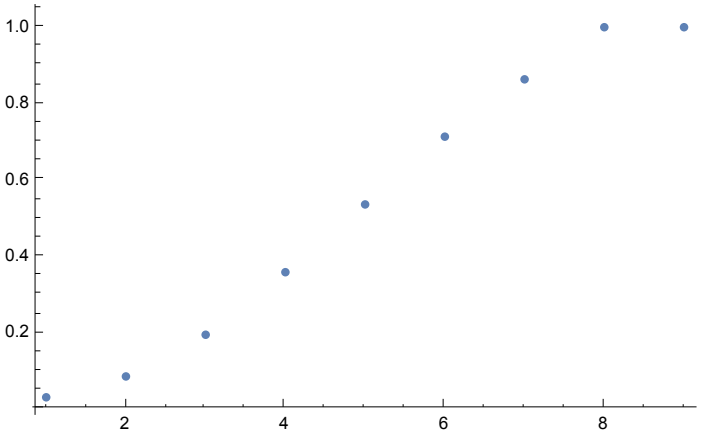



```
v0t = Table[vvt[[i]] / peak[[i]], {i, 1000}];
```

```
ListPlot[{Transpose[{tt, v0t[[1]]}], Transpose[{tt, v0t[[2]]}],
  Transpose[{tt, v0t[[3]]}], Transpose[{tt, v0t[[4]]}](*,
  Transpose[{ttt,v01[[5]]}],Transpose[{ttt,v01[[6]]}],
  Transpose[{ttt,v01[[7]]}],Transpose[{ttt,v01[[8]]}],
  Transpose[{ttt,v01[[9]]}],Transpose[{ttt,v01[[10]]}],
  Transpose[{ttt,v01[[11]]}],Transpose[{ttt,v01[[12]]}]*)},
 PlotRange → {{-2, 0}, {0, 1}}, Joined → True]
```

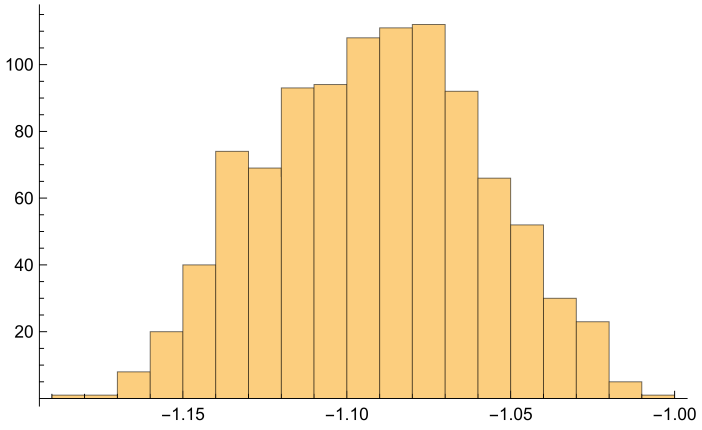


```
ListPlot[Take[v0t[[2]], {252, 260}], PlotRange → Full]
```

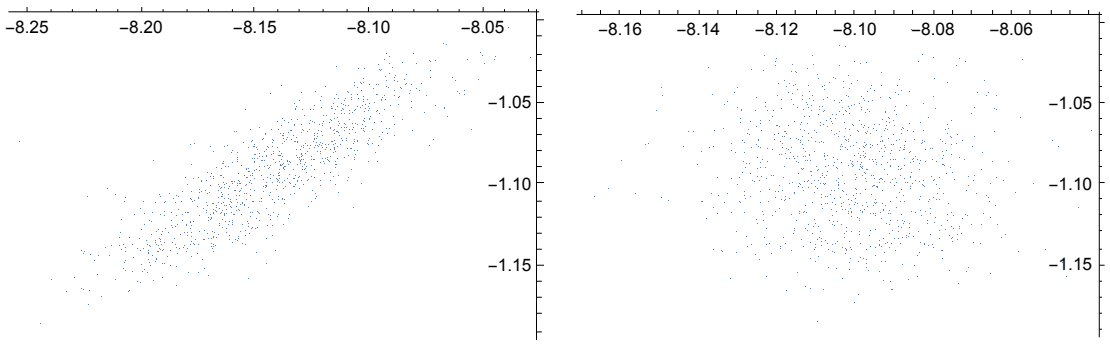



```
v0t1 = Table[Take[v0t[[i]], {253, 258}], {i, 1000}];
tttt = Take[tt, {253, 258}];

thresh1 = ConstantArray[0, 1000];
Do[
f = Interpolation[
    Transpose[{(v0t1[[i]] * (1 + RandomReal[{-.001, .001}])), tttt}]];
  thresh1[[i]] = f[0.35];
  , {i, 1000}];
```

```
Histogram[thresh1]
```




```
GraphicsRow[{ListPlot[Transpose[{thresh, thresh1}]],
  ListPlot[Transpose[{thresh - (thresh1 + 1.05), thresh1}]]}, ImageSize → Large]
```



```
mn2 = Mean[thresh - (thresh1 + 1.05)]
rms2 = RootMeanSquare[(thresh - (thresh1 + 1.05)) - mn2]
```

```
-8.10117
```

```
0.0186925
```