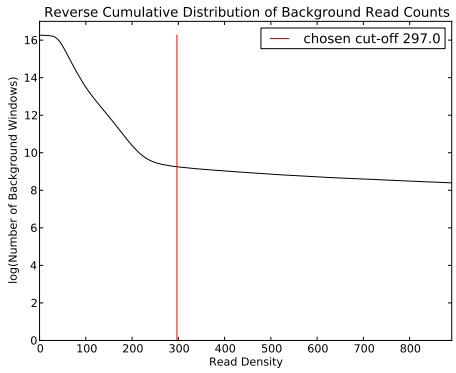
Filtering of Background Read Counts:

0.1

```
Used BG cut-off: 297
10450 of 11579658 input windows were filtered out (0.0902444614513 percent).
```



Fitting Background Noise Distribution:

0.2

```
Fitted parameters:
        -sigma: 0.244556854674093
        -rho: 0.00897809407579928
        -mu: -0.153649707875116
```

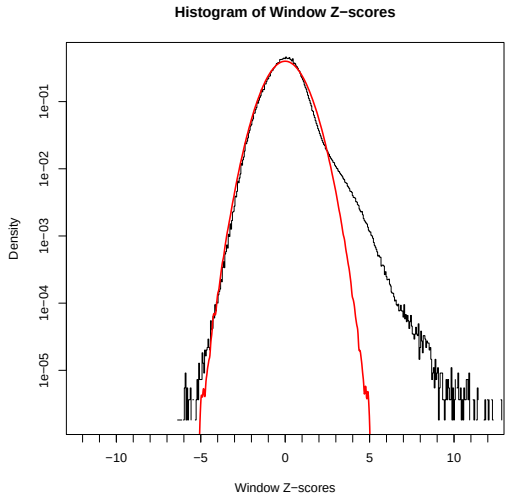


Figure 1: Distribution of Window Z-values with Fitted Gaussian.

Determining Z-value Cut-off and Mergeing Windows:

Bin Reads Log

```
Z value cut-off: 3.83
Number of windows above Z value cut-off: 42526
Number of regions above Z value cut-off: 21819
```

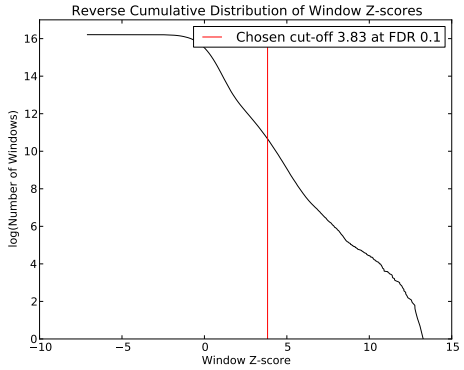


Figure 2: Reverse Cumulative Distribution of Window Z-values.

Refining Peaks (Gaussian Mixture Modelling):

0.3

```
About 21850 input regions.
Found mean fragment length 120.5. Constrained sigma to 38.387-95.387
```

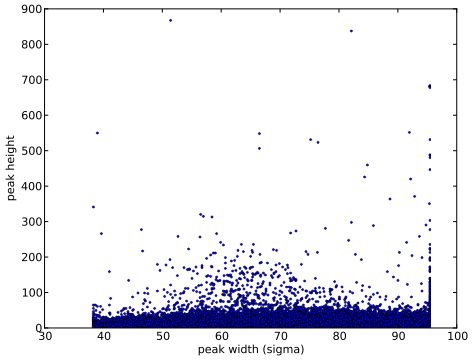


Figure 3: Scatter plot of peak height versus peak width

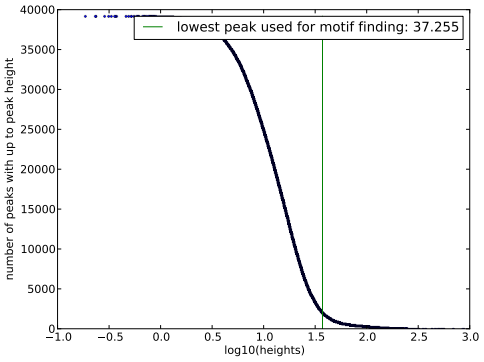


Figure 4: Reverse cumulative distribution of peak heights

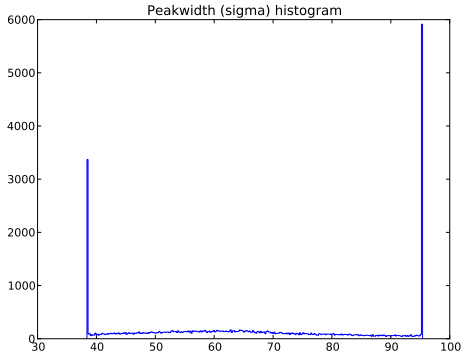


Figure 5: Histogram of peak widths (sigmas)

Computing Z-scores of Refined Peaks:

0.4

```
Total number of peaks: 39165
Number of peaks above Z-score of 3.83: 19318
```

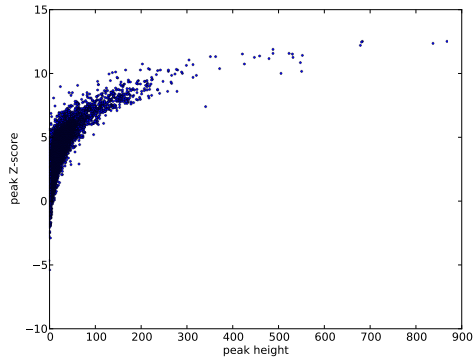


Figure 6: Scatter plot of peak height versus peak Z-score

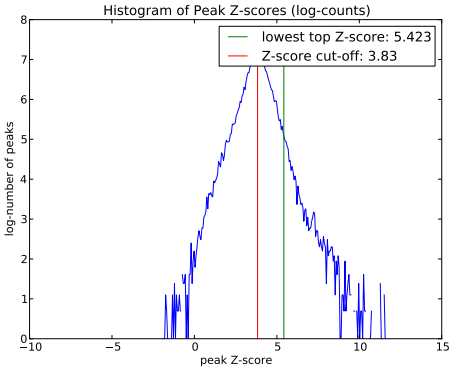


Figure 7: Histogram of peak Z-scores

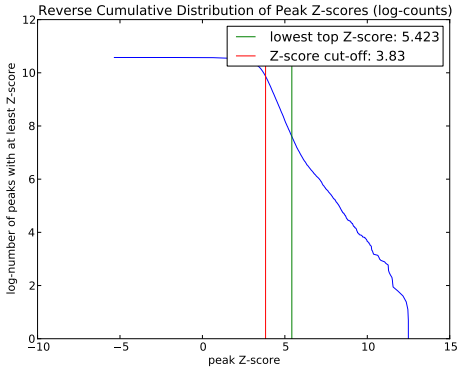


Figure 8: Reverse cumulative of peak Z-scores

Annotating Refined Peaks:

0.5

212 peaks were not annotated out of 19318 peaks.