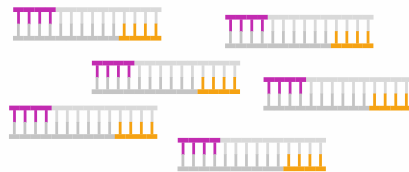




...

Plasma DNA
Sequencing and
Alignment

500kb



Retrieve
End Motif
Frequency

Motif	Count
AAAA	1
AAAC	3
AAAT	2
...	...
GGGC	1
GGGT	2
GGGG	1

Calculate
Shannon Entropy of
5' End Motifs
in Genomic Bin
(rMDS)

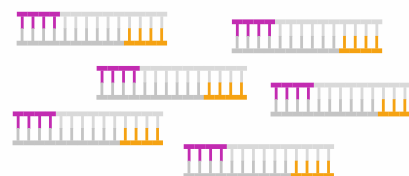
$$\sum_{i=1}^{256} \frac{-p_i \log(p_i)}{\log(256)}$$

↓ Z-score transform

1.75

...

500kb



...

◇ Watson Strand
5' End Motif

◇ Crick Strand
5' End Motif

Motif	Count
AAAA	12
AAAC	0
AAAT	0
...	...
GGGC	5
GGGT	0
GGGG	0

$$\sum_{i=1}^{256} \frac{-p_i \log(p_i)}{\log(256)}$$

↓ Z-score transform

-1.9