

Reference sequence

```
>gil157154711:168950-171193  
ATGGCGCGTTCCAAACTGTGCAAACCAT
```

Parameters

$\alpha = 0.5$
 $\beta = 10,000$
 $\gamma = \text{Platform X}$

Profile
(1..n)

Simulator

FASTQ FASTA Reads
SAM BAM SFF

Reads from
reference or
closely related
sequence

FASTQ

SAM
BAM

Profiling and/or characterization

STAR

HISAT-3N

SLAM-DUNK

Bowtie

meRanGs

Scripts...