5'-peak in read coverage

Hello

I got a strong 5' bias. First positions in a transcript have a high(very high coverage) . The window that follows has almost no reads.

I believe the figure should speak for itself. I join also the parameters file used.

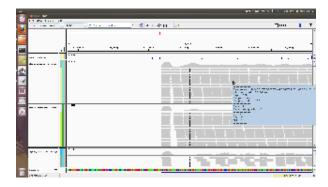
I noticed that accepting variability in TSS position reduces this bias but I want to simulate data with a fixed TSS.

Any suggestions on how to reduce this bias?

Thank you,

Bogdan

5bias.png



Parameters

NB_MOLECULES 50000 TSS_MEAN NaN

POLYA_SCALE 50 POLYA_SHAPE

Fragmentation

FRAG_SUBSTRATE RNA FRAG_METHOD

FRAG_NB_LAMBDA 50

RT parameters

RTRANSCRIPTION YES

RT_PRIMER RH
RT_LOSSLESS YES

RT_MIN 2000 RT_MAX 6000

PCR / Filtering

no [GC] bias to not observe sequence based biases

PCR_DISTRIBUTION default

PCR_PROBABILITY 0.5

GC_MEAN NaN

FILTERING YES

SIZE_SAMPLING MH

Sequencing

FASTA true

READ_NUMBER 1000000 READ_LENGTH 50 PAIRED_END NO