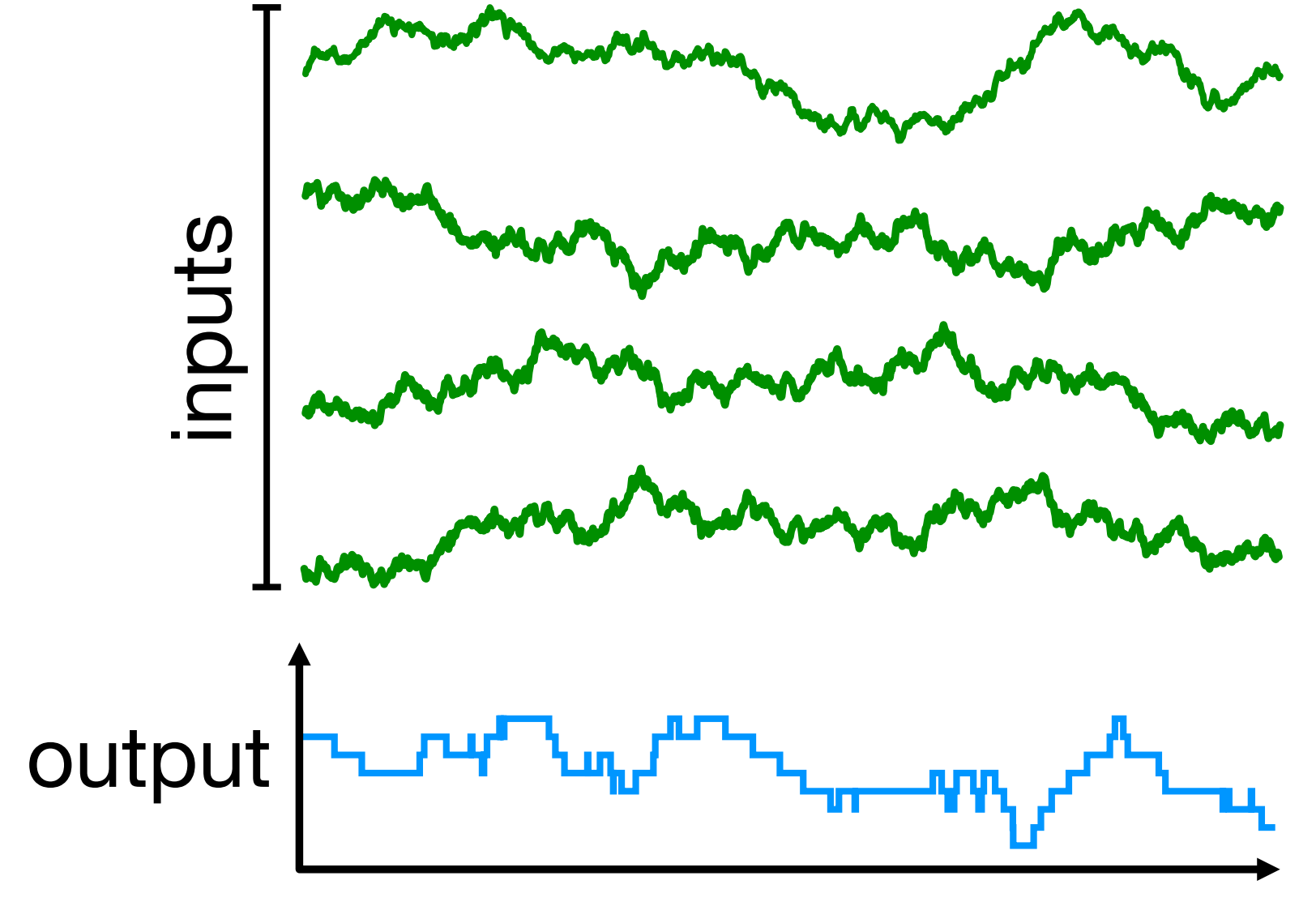
Model-based Information Estimate

10

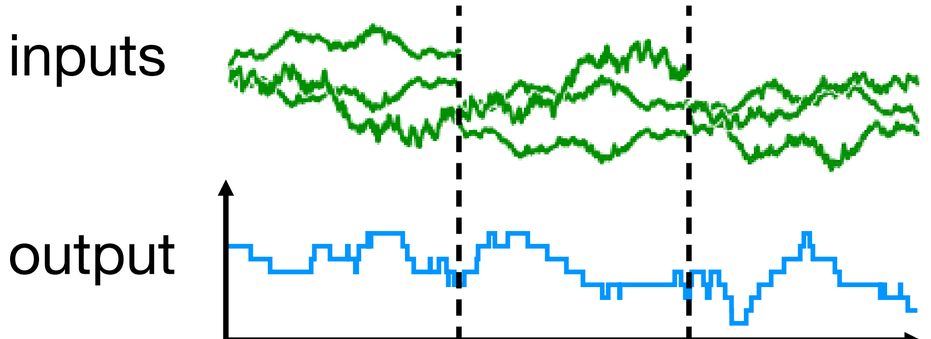
Computing P(*x*)

$$\mathrm{P}(x) = \sum_{s} \mathrm{P}(s)\mathrm{P}(x|s)$$

The *direct* way: $\mathrm{P}(x) = \langle \mathrm{P}(x|s) \rangle_{\mathrm{inputs}}$


inputs
output

Sampling *segment by segment*:



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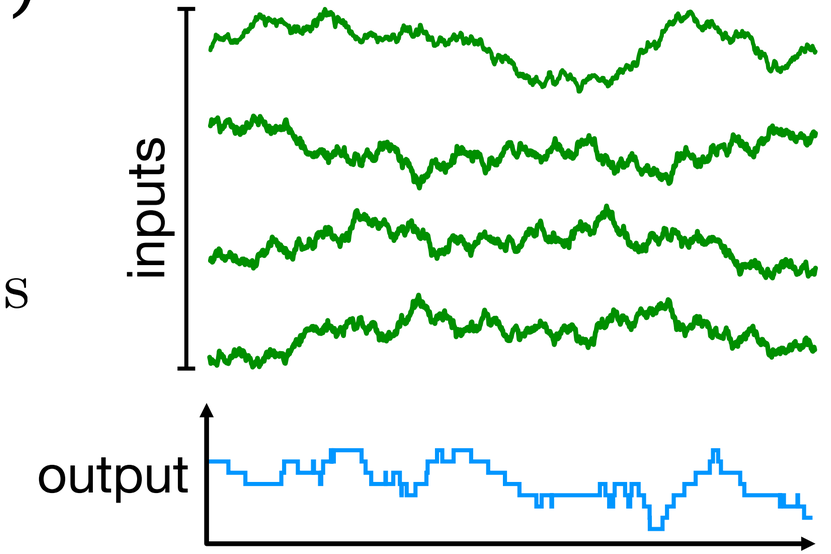
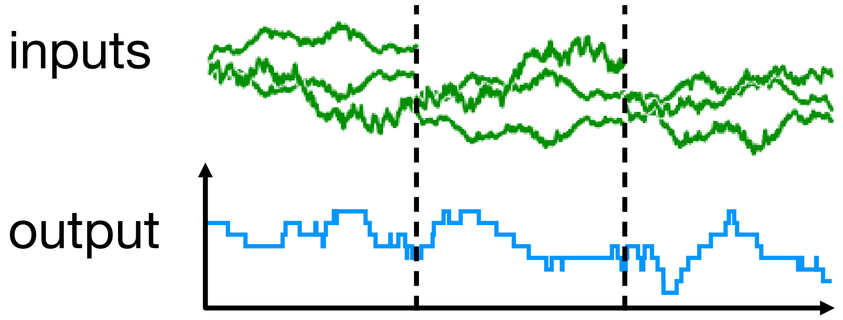


Sampling *segment by segment*:



Results

Simple Birth-Death Model

$$\emptyset \rightarrow S$$

$$S \rightarrow \emptyset$$

$$S \rightarrow S + X$$

$$X \rightarrow \emptyset$$