

# Uebung 10

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**Exercise 1** Derive the consensus sequence and define match states for a profile HMM accordingly, only columns with >50% nucleotides are modeled. (\_/3)

Consensus sequence:

G	C	-	C	T	C
G	C	T	-	T	C
-	C	-	C	-	A
G	-	-	-	T	C
A	C	-	C	T	-
<b>G</b>	<b>C</b>	<b>-</b>	<b>C</b>	<b>T</b>	<b>C</b>

State annotation:

M	M	D	M	M	M
M	M	I	D	M	M
D	M	D	M	D	M
M	D	D	D	M	M
M	M	D	M	M	D
<b>0</b>	<b>1</b>	<b>.</b>	<b>2</b>	<b>3</b>	<b>4</b>

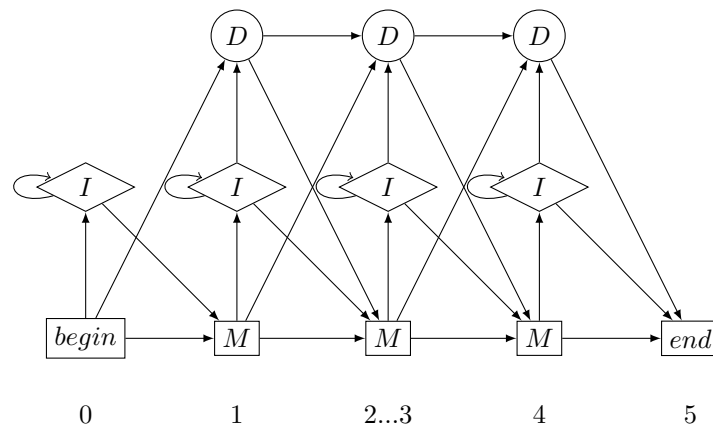


Figure 1: Profile HMM