Input: sequences X, Y, Z
foreach $n^{(X)} \in \mathscr{F}^{(X)}$ **do** `/* inside→outside sorted */`
  foreach $n^{(Y)} \in \mathscr{F}^{(Y)}$ **do** `/* inside→outside sorted */`
    foreach $n^{(Z)} \in \mathscr{F}^{(Z)}$ **do** `/* inside→outside sorted */`
      foreach *state* $\boldsymbol{a}$ **do**
        $\mathsf{bifurcProb} \leftarrow 0$;
        foreach $\left(n_L^{(X)}, n_R^{(X)}\right) \in b_{in}\left(n^{(X)}\right)$ **do**
          foreach $\left(n_L^{(Y)}, n_R^{(Y)}\right) \in b_{in}\left(n^{(Y)}\right)$ **do**
            foreach $\left(n_L^{(Z)}, n_R^{(Z)}\right) \in b_{in}\left(n^{(Z)}\right)$ **do**
              $\mathsf{bifurcProb} \leftarrow \max\left(\mathsf{bifurcProb}, \texttt{calcLBifurcProb}(\boldsymbol{a}; \cdot)\right)$;
              $\mathsf{bifurcProb} \leftarrow \max\left(\mathsf{bifurcProb}, \texttt{calcRBifurcProb}(\boldsymbol{a}; \cdot)\right)$;
            end
          end
        end
        $\gamma_{\boldsymbol{a}}\left(n^{(X)}, n^{(Y)}, n^{(Z)}\right)$
          $\leftarrow \max\left(\texttt{calcTransEmitProb}\left(\boldsymbol{a}; n^{(X)}, n^{(Y)}, n^{(Z)}\right), \mathsf{bifurcProb}\right)$;
        store $\gamma_{\boldsymbol{a}}\left(n^{(X)}, n^{(Y)}, n^{(Z)}\right)$;
      end
    end
  end
end
return $\gamma_{\boldsymbol{a}}\left(n^{(X)}[0, L^{(X)}], n^{(Y)}[0, L^{(Y)}], n^{(Z)}[0, L^{(Z)}]\right)$;