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1:  $\mathcal{G} = \{\mathcal{V}, \mathcal{E}\} \leftarrow \text{interpret-program-to-graph}(\mathcal{P})$ 
2: for  $v \in \mathcal{V}$  do
3:    $\mathcal{M}_v \leftarrow \text{compute-Markov-blanket}(v, \mathcal{G})$ 
4:    $k_v \leftarrow \text{pattern-match-to-select-Gibbs-kernel}(v, \mathcal{M}_v)$ 
5:   if  $k_v = \emptyset$  then  $\perp$ 
6:   end if
7: end for
8:  $\mathcal{S} \leftarrow \{\}$ 
9: for  $s = 1 \dots S$  do ▷ sweeps
10:   for  $v \in \mathcal{V}$  do ▷ variables
11:      $v \sim k_v(\mathcal{M}_v)$ 
12:   end for
13:    $\mathcal{S} \leftarrow \mathcal{S} \cup \mathcal{G}$ 
14: end for
15: return  $\mathcal{S}$ 

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