$p_i^0 = \begin{cases} \frac{1}{N}, & \text{if } i \in QIndices \\ 0, & \text{otherwise} \end{cases}$ 

 $p^0 \leftarrow \{p_i^0\} \text{ for } i \in indices \text{ of } W$ 

 $pfinal = p^{t+1}$ 

$$\begin{array}{c} Column normalize \ W \\ \textbf{while} \ |p^{t+1}-p^t| \leq threshold \ \textbf{and} \ iter \leq iter\_cutoff \ \textbf{do} \\ | \qquad p^{t+1} = (1-r)Wp^t + rp^0 \\ \textbf{end} \end{array}$$