LIST OF TABLES

Step	Size	Cost
1. Form $\mathbf{Y} = (\mathbf{E}\mathbf{E}^*)^q\mathbf{E}\mathbf{W}$	$N \times n_p$	$2n_p + 4qn_p$ PDE-solves
2. Construct $[\mathbf{Q}, \sim] = qr(\mathbf{Y})$	$N \times n_p$	$\mathcal{O}(Nn_p^2)$ flops
3. Form $\mathbf{Z} = \mathbf{E}^*\mathbf{Q}$	$N \times n_p$	$2n_p$ PDE-solves
4. $[\mathbf{\Phi}, \mathbf{\Sigma}, \mathbf{\Psi}] = \text{svd}(\mathbf{Z}^*)$	$n_p \times n_p, n_p, N \times n_p$	$\mathcal{O}(Nn_p^2)$ flops
5. Update $\mathbf{\Phi} \leftarrow \mathbf{Q}\mathbf{\Phi}$	$N \times n_p, n_p, N \times n_p$	-

Table 1: Storage and computational cost for simultaneous power iterations, where $N = n_x \times n_z$ corresponds to the size of the model and n_p stands for the number of probing vectors.

Step	Size	Cost
1. Form $\mathbf{K} = [\mathbf{EW}, \cdots, (\mathbf{EE}^*)^q\mathbf{EW}]$	$N \times (q+1)n_p$	$2n_p + 4qn_p$ PDE-solves
2. Construct $[\mathbf{Q}, \sim] = qr(\mathbf{K})$	$N \times (q+1)n_p$	$\mathcal{O}(N(q+1)n_p^2)$ flops
3. Form $\mathbf{Z} = \mathbf{E}^*\mathbf{Q}$	$N \times (q+1)n_p$	$2(q+1)n_p$ PDE-solves
4. $[\mathbf{\Phi}, \mathbf{\Sigma}, \mathbf{\Psi}] = \text{svd}(\mathbf{Z}^*)$ with only n_p singular vectors	$n_p \times n_p, n_p, N \times n_p$	$\mathcal{O}(N(q+1)n_p^2)$ flops
5. Update $\mathbf{\Phi} \leftarrow \mathbf{Q\Phi}$	$N \times n_p, n_p, N \times n_p$	

Table 2: Storage and computational cost for block Krylov iterations, where $N = n_x \times n_z$ corresponds to the size of the model and n_p stands for the number of probing vectors.