



Legend:

$$E_n^{(j)} \leftarrow A_n^{(j)} \leftarrow \frac{\alpha_{n-1}^{(j)}}{\beta_{n-1}} E_{n-1}^{(j)}$$

indicates $E_{n-1}^{(j)}$ is chosen
with probability $\frac{\alpha_{n-1}^{(j)}}{\beta_{n-1}}$ to
multiply $A_n^{(j)}$ and form

$$E_n^{(j)}$$

$$\alpha_n^{(j)} = |A_n^{(j)} E_{n-1}^{(j)*}|^2$$

$$\beta_n = \sum_{j=1}^K \alpha_n^{(j)}$$

$$P(i_n^* = j) = \frac{\alpha_{n-1}^{(j)}}{\beta_{n-1}}$$