Particle filter

t = 1

Normalise weights

$$W_1^{(k)} = \frac{w_1^{(k)}}{\sum_{k'} w_1^{(k')}}$$

$$\begin{pmatrix} \mathbf{x}_1^{(1)} \end{pmatrix} \qquad \begin{pmatrix} \mathbf{x}_1^{(2)} \end{pmatrix} \qquad \begin{pmatrix} \mathbf{x}_1^{(3)} \end{pmatrix} \qquad \begin{pmatrix} \mathbf{x}_1^{(4)} \end{pmatrix} \qquad \begin{pmatrix} \mathbf{x}_1^{(5)} \end{pmatrix}$$

$$0/5 \qquad 2/5 \qquad 2/5 \qquad 0/5 \qquad 1/5$$