

$$\begin{aligned}
\sum_{\lambda=A}^Z \left(p_{\lambda} - \frac{1}{26} \right)^2 &= \sum_{\lambda=A}^Z (p_{\lambda})^2 - 2 \sum_{\lambda=A}^Z \frac{1}{26} p_{\lambda} + \sum_{\lambda=A}^Z \left(\frac{1}{26} \right)^2 \\
&= \sum_{\lambda=A}^Z (p_{\lambda})^2 - \frac{2}{26} \sum_{\lambda=A}^Z p_{\lambda} + \left(\frac{1}{26} \right)^2 \sum_{\lambda=A}^Z 1 \\
&= \sum_{\lambda=A}^Z (p_{\lambda})^2 - \frac{2}{26} \times 1 + 26 \times \left(\frac{1}{26} \right)^2 \\
&= \sum_{\lambda=A}^Z (p_{\lambda})^2 - \frac{1}{26} \\
&= \sum_{\lambda=A}^Z (p_{\lambda})^2 - 0.038 \\
&\approx 0.065 - 0.038 \\
&= 0.027
\end{aligned}$$