

because the momentum transfer (squared) Q^2 carried by the W is very small. Thus the decay rate will be proportional to

$$\left(\frac{\sqrt{\alpha_W} \sqrt{\alpha_W}}{M_W^2} \right)^2 = \frac{\alpha_W^2}{M_W^4}.$$

In the case of the neutral pion, there are two vertices of strength $\sqrt{\alpha_{em}}$, but no propagator. Thus the decay rate will be proportional to α_{em}^2 and since $\alpha_{em} \approx \alpha_W$, the decay rate for the charged pion will be much smaller than that for the neutral decay, i.e. the lifetime of the π^0 will be much shorter.