One then obtains

$$\Lambda^2 = \left\{ 2\hbar\omega_{pigmy} \frac{0.1(TRK)/\langle r^2\rangle_{^{11}Li}}{[(\varepsilon_{p_{1/2}} - \varepsilon_{s_{1/2}})^2 - (\hbar\omega_{pigmy})^2]^2} \right\}^{-1}$$

$$= \left\{ 2\,\text{MeV} \frac{0.1(\hbar^2 A/2M)(1/\langle r^2\rangle_{^{11}Li})}{[(0.5)^2 - (1\,\text{MeV})^2]^2\,\text{MeV}^4} \right\}^{-1}$$

$$= \left(\frac{0.75}{1.57}\right)^2 = 0.48\ \text{MeV}^2$$

leading to $\Lambda = 0.7$ MeV. The value of induced interaction matrix element is then given by

$$M_{ind} = -\frac{\Lambda^2}{\hbar\omega_{pigmy}} = -0.5\ \text{MeV},$$

and the same contribution for the other time ordering. Assuming the halo neutrons to spend the same amount of time in the $|s^2_{1/2}(0)\rangle$ ($\varepsilon_{s_{1/2}} = 0.1$ MeV) than in the $|p^2_{1/2}(0)\rangle$ ($\varepsilon_{p_{1/2}} = 0.6$ MeV) configuration, the correlation energy is $E_{corr} = |2(\varepsilon_{s_{1/2}} + \varepsilon_{p_{1/2}})/2 + 2M_{ind}| = 0.3$ MeV, in overall agreement with the findings (0.380 MeV, reference).