

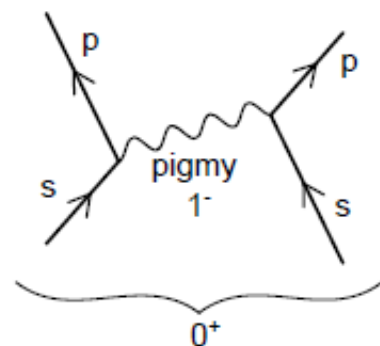
New physics

$r \ll 1$
 bare NN-pairing
 screened
 subcritical ($r v_{nn} < G_c$)

$$r \approx O \approx \left(\frac{R_0}{R} \right)^3$$

unity

$O \ll 1$
 strongly screened
 symmetry energy
 soft $E1$ -mode
 (pigmy 1^-)



pigmy
 halo
 gs

$^{11}_3\text{Li}_8$

1^-
 halo
 0^+

gs

$^{12}_4\text{Be}_8$

pair addition
 halo mode