



∦ neutron pair halo

- particle-vibration coupling vertex
- $\odot$  particle-pair vibration coupling vertex  $v_{np}$  proton-neutron int.

 $\leq$  recoil mode

- $\uparrow$  neutron  $\uparrow$  bound  $\uparrow$   $\downarrow^{2+} \stackrel{9}{>} \text{Li core quadr.}$ vibr. mode ...  $\downarrow^{1-} \stackrel{1}{>} 11 \text{Li giant dipole pygmy}$
- resonance mode

  particle-recoil mode

coupling vertex

deuteron
continuum
proton
continuum
monopole
interaction