



$\parallel$  neutron pair halo

• particle-vibration coupling vertex

⊙ particle-pair vibration coupling vertex

$v_{np}$  proton-neutron int.

$\sim$  recoil mode

$\uparrow$  neutron  
 $\blacktriangle$  proton } bound

$2^+ \sim$   $^9\text{Li}$  core quadr. vibr. mode

$1^- \sim$   $^{11}\text{Li}$  pygmy dipole resonance mode

$\square$  particle-recoil coupling vertex (PRCV)

$\uparrow\blacktriangle$  deuteron  
continuum  
 $\uparrow$  proton  
continuum  
pairing  
interaction