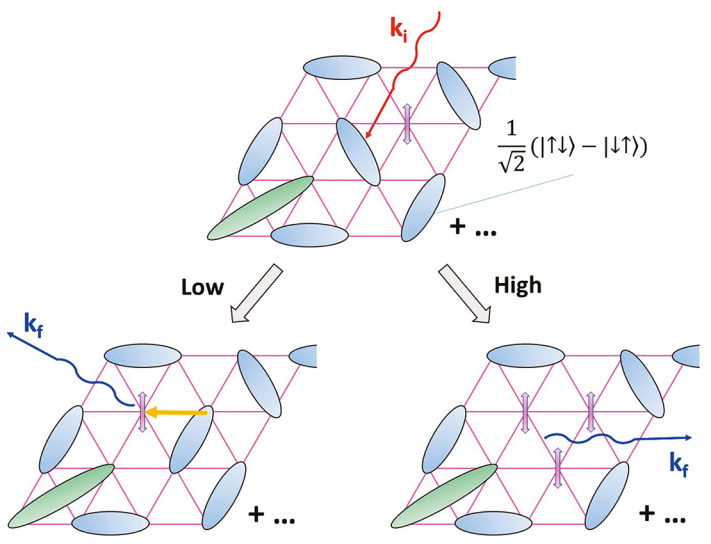

Valence-bond representation of a quantum spin liquid: magnetic moments are located at nodes of the triangular lattice and form pairs ("valence bonds") shown by ovals. Incoming neutrons denoted by the red arrow trigger two types of excitation processes. Neutrons with higher energy break the valence bond and release two unpaired spins, as shown in the lower right sketch. Neutrons with lower energies cause a re-arrangement valence bonds (lower left sketch) that, in turn, triggers the propagation of an unpaired spin through the system. The plus signs in each sketch emphasize that only one possible configuration of va-lence bonds is shown. The actual ground state comprises this and all other possible valence-bond configu-rations.