

Physics of Hadrons

Physics of Nuclei

Degrees of Freedom

Energy (MeV)



quarks, gluons



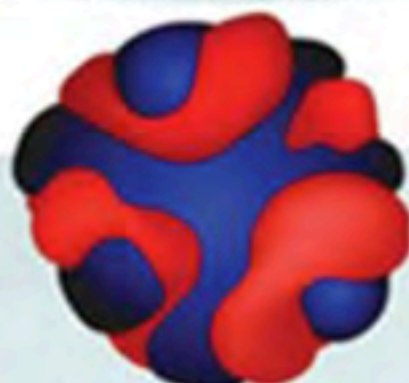
constituent quarks



baryons, mesons



protons, neutrons



nucleonic densities  
and currents



collective coordinates

940  
neutron mass

140  
pion mass

8  
proton separation  
energy in lead

1.12  
vibrational  
state in tin

0.043  
rotational  
state in uranium

RHIC

JLAB

FRIB