

# PROPERTIES OF THE INTERACTIONS

Property \ Interaction	Gravitational	Weak (Electroweak)	Electromagnetic	Strong	
				Fundamental	Residual
Acts on:	Mass – Energy	Flavor	Electric Charge	Color Charge	See Residual Strong Interaction Note
Particles experiencing:	All	Quarks, Leptons	Electrically charged	Quarks, Gluons	Hadrons
Particles mediating:	Graviton (not yet observed)	$W^+$ $W^-$ $Z^0$	$\gamma$	Gluons	Mesons
Strength relative to electromag for two u quarks at:	$10^{-41}$	0.8	1	25	Not applicable to quarks
for two protons in nucleus	$10^{-41}$	$10^{-4}$	1	60	
	$10^{-36}$	$10^{-7}$	1	Not applicable to hadrons	