



COLLOQUIUM

Up, Down & Strange Quarks
Gell-Mann (1969 Nobel Prize), Zweig, Kendall, Friedman, Taylor (1990 Nobel Prize)

Charm Quark
Richter, Ting (1976 Nobel Prize)

Top Quark
CDF, D-Zero Collaborations

Bottom Quark
Lederman

Anti-Electron
Anderson (1936 Nobel Prize)

Tau
Perl (1995 Nobel Prize)

Electron-Neutrino
Reines & Cowan (1995 Nobel Prize)

Muon
Anderson, Neddermeyer

Muon-Neutrino
Lederman, Schwartz, Steinberger (1988 Nobel Prize)

Tau-Neutrino
DONUT Collaboration

Quarks			Q
u	c	t	2/3
d	s	b	1/3

Leptons			Q
e	μ	τ	-1
ν_e	ν_μ	ν_τ	0

Dr. Subhash Rajpoot
California State University, Long Beach

Standard Model (SM) Extension with Local Scale Invariance

Abstract

Despite the successes of the SM, there is structure beyond the SM, both in the gauge and the fermion sector, that needs addressing either from phenomenological or aesthetic consideration. I will present an overview of the likely structure(s) beyond the SM that can emerge. All these are well motivated with respect to physics. Amongst these, ambidextrous electroweak interactions and Weyl's scale invariance are two SM extensions that are most likely to be unraveled at the present LHC or future high energy machine. Refreshments will be served at 3pm.

3-4 p.m., Friday, Apr. 13th
McLane Hall 162
All welcome!