THE STANDARD MODEL: AN INTRODUCTION

- **Building the Model:**
  - A Bit of Context
    - Problem Session: Muon Decay, Neutral Currents
  - Strong Interactions, I: QCD Lagrangian [Why SU(3), Symmetries]
    - Problem Session: Parton Model
  - Strong Interactions, II: Renormalization Group Equations
    - Problem Session: Asymptotic Freedom
  - Electroweak Interactions, I: Gauge sector [Why SU(2)xU(1)]
    - Problem Session: e+e- --> Z --> mu+mu-
  - Electroweak Interactions, II: Higgs sector [Symmetry Breaking]
    - Problem Session: Custodial Symmetry, the 5th Force
  - Electroweak Interactions, III: Yukawa sector [Matter Content and CKM matrix]
    - Problem Session: Flavor Changing Currents

- **Testing the Model:**
  - Tree level predictions [m_W and Weinberg angle]
  - Low-Energy Tests [APV and EDMs]
  - Deep Inelastic Scattering [Scaling Violations]
  - EW Precision Measurements [One-Loop Radiative Corrections]
  - Effective hamiltonians [Delta S and Delta B = 1 or 2]
  - Flavor Physics [Unitarity Triangle, CP violation]
  - Stability of EW vacuum [Naturalness and Hierarchy problem]
  - Almost Beyond the SM [Neutrino Masses and Oscillation]
