4/26/16 Lecture 9 outline / summary

• $P_{L,R} = \frac{1}{2}(1 \mp \gamma_5)$, $\mathcal{L} = \bar{\psi}(P_L^2 + P_R^2)(i\partial\!\!\!/ - m)\psi = \bar{\psi}_R i\partial\!\!\!/ \psi_R + \bar{\psi}_L i\partial\!\!\!/ \psi_L - m\bar{\psi}_R\psi_L - m\bar{\psi}_L\psi_R$. Continue and finish with $e^+e^- \to \mu^+\mu^-$ (see also the book).

• The large s limit.

• Helicity.

• Left and right-handed chiral fermions. Mention again SM Fermions, and that they're actually all chiral.

• Parity and its violation in β decays: into the looking glass.

• CP and CPT and Feynman's story.

• Start isospin.