Abstract Submitted
for the PSF09 Meeting of
The American Physical Society

Mesons From String Theory KORY STIFFLER, The University of Iowa — After a brief historical synopsis of the connection between gauge theories and string theory is discussed, meson configurations known as k-strings will be discussed. K-strings can be examined from string theory via the gauge/gravity correspondence. Backgrounds dual to k-strings in both $2+1$ and $3+1$ will be discussed. The energy of k-strings to lowest order consists of a tension term, proportional to the length, L, of the k-string, i.e., the size of the mesons in the configuration. The first quantum correction is a Coulombic $1/L$ correction, known as a Lüscher term, plus a constant. Acquiring tensions and Lüscher terms via the gauge/gravity correspondence will be discussed.

Kory Stiffler
The University of Iowa

Date submitted: 14 Oct 2009 Electronic form version 1.4