Abstract Submitted for the APR13 Meeting of The American Physical Society

A Mesonic Deuteron Analog TERRENCE GOLDMAN, Los Alamos National Lab / U of New Mexico, RICHARD SILBAR, Los Alamos National Lab — Using the Los Alamos Model Potential first applied to nuclear quark structure, we calculate the binding energy and quark structure of a B-meson and a D-meson. Aside from the spin differences, the larger than nucleon masses and complete absence of quark Pauli repulsive effects leads to a much smaller, but otherwise deuteron-like state, wherein pion exchange is present but not the dominant contribution to the binding of the state.

> Terrence Goldman Los Alamos National Lab / U of New Mexico

Date submitted: 11 Jan 2013

Electronic form version 1.4