

Abstract Submitted
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Chiral Lagrangian with Heavy Quark-Diquark Symmetry JIE HU,
Duke University, THOMAS MEHEN, Duke University, Jefferson Laboratory — We
construct a chiral Lagrangian for doubly heavy baryons and heavy mesons that is
invariant under heavy quark-diquark symmetry at leading order and includes the
leading $O(1/m_Q)$ symmetry violating operators. The theory is used to predict the
electromagnetic decay width of the $J = \frac{3}{2}$ member of the ground state doubly heavy
baryon doublet. Numerical estimates are provided for doubly charm baryons. We
also calculate chiral corrections to doubly heavy baryon masses and strong decay
widths of low lying excited doubly heavy baryons.

Jie Hu
Duke University

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