

Abstract Submitted
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Studies in heavy baryon chiral perturbation theory T. BRIAN BUNTON, Duke University — We investigate heavy baryon chiral perturbation theory (HBChPT) and its convergence properties by considering different power counting schemes and higher order terms. We apply these modifications to strong decays of the decuplet baryons and to axial currents of the octet baryons. Then we turn to weak decays of the octet and decuplet. We hope to improve the extraction of low energy constants of the theory with the goal of providing improved predictions for octet and decuplet baryon observables, including those involved in hypernuclear decay.

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