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Universal Corrections to Gyromagnetic Ratios of Bound Particles with Arbitrary Spins[1] TIMOTHY MARTIN, MICHAEL EIDES, University of KY — The leading relativistic and recoil corrections for bound state anomalous magnetic moment are calculated. It is demonstrated that these corrections are universal for any spin and depend only on the free particle gyromagnetic ratio. To prove this universality we develop NRQED for charged particles with an arbitrary spin. We also confirm that the coefficients in the Bargmann-Michael-Telegdi equation for spin motion in an external field depend only on the gyromagnetic ratio, and are independent of the magnitude of spin.

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