



Figure 3: Rubidium 87 D_1 transition hyperfine structure, with frequency splittings between the hyperfine energy levels. The excited-state values are taken from [10, 11, 26], and the ground-state values are from [29]. The relative hyperfine shifts are shown to scale within each hyperfine manifold (but visual spacings should not be compared between manifolds or to the optical splitting). The approximate Landé g_F -factors for each level are also given, with the corresponding Zeeman splittings between adjacent magnetic sublevels.