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Collision dynamics of magnetically trapped Na and Rb MATTHEW GIBBS, TETSUYA ISHIKAWA, GUSTAVO TELLES, CHANDRA RAMAN, Georgia Institute of Technology — We present a study of the collision dynamics of a dual species sample of magnetically trapped ^{23}Na and ^{87}Rb atoms. Careful control of loading dynamics and internal state preparation was necessary to minimize inter-species trap losses. Simultaneous magnetic trapping of the two species in the |1,-1> state was achieved with lifetimes of several seconds, which suggests an absence of strong interactions in the ultracold regime, as well as the possibility of sympathetic cooling. The observation and probing of spin exchange collisions and Feshbach resonances in this mixture are our immediate major interests, and the future goal is to synthesize and manipulate NaRb ultracold polar molecules.

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