

Dipolar interactions are in vogue, for their interesting tunable properties in the ultracold regime. In molecules, permanent electric dipoles can be manipulated to tailor their behavior in, for instance, optical lattices. In atoms, magnetic dipole interaction, arising from spin-spin interaction, can be controlled in precision by magnetic fields. I will chronicle our calculations of the so-called magnetic Feshbach resonances in the collision of Bose-Fermi mixture of chromium atoms. Spin-spin and hyperfine interactions, which can lead to spin relaxation, as well as the usual Born-Oppenheimer electrostatic interactions are included.