Numerical studies of interaction of bicircular laser pulses with atoms.[1] YONAS GEBRE, JOEL VENZKE, ANDREAS BECKER, AGNIESZKA JARON-BECKER, JILA and Department of Physics, University of Colorado, Boulder — We perform numerical studies of the interaction of atoms with intense bicircular laser pulses. We study the interaction by numerically solving the time dependent Schrödinger equation (TDSE). The numerical methods used for our calculations will be discussed, particularly the choice of gauge for the TDSE. We demonstrate the convergent behavior of length and velocity gauge for a variety of TDSE calculations, and the resolution of excitation to high Rydberg states.

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