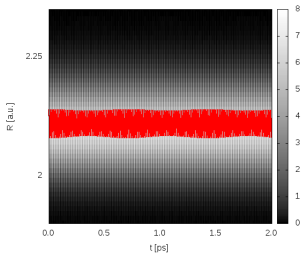
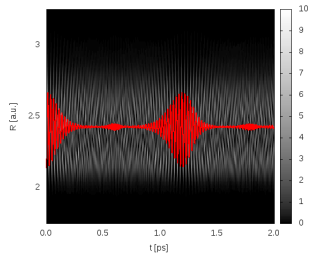


CO⁺ field-free, single curve propagation

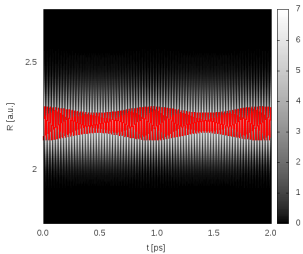
$X^2\Sigma^+$



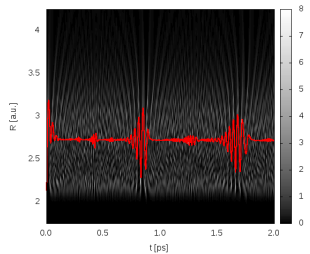
$A^2\Pi$



$B^2\Sigma^+$

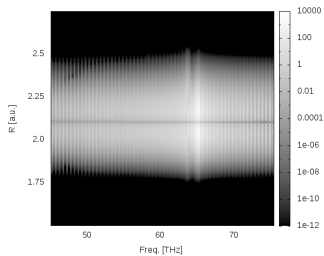


$a^4\Sigma^+$

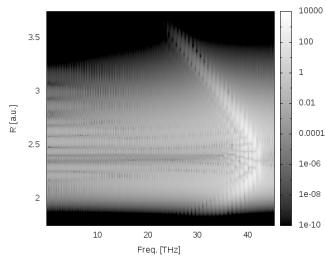


CO⁺ field-free, single curve curve power spectra

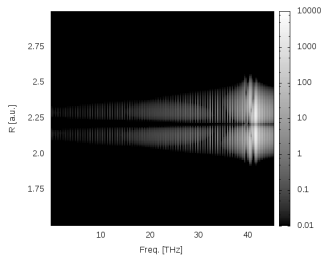
$X^2\Sigma^+$



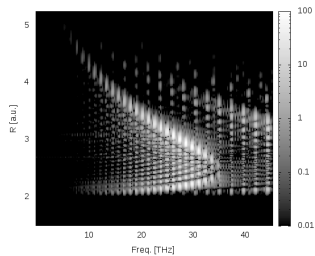
$A^2\Pi$



$B^2\Sigma^+$



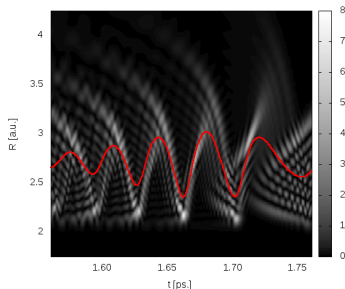
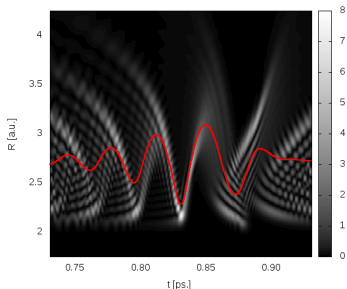
$a^4\Sigma^+$



CO⁺ field-free, single curve propagation

Remaining issues:

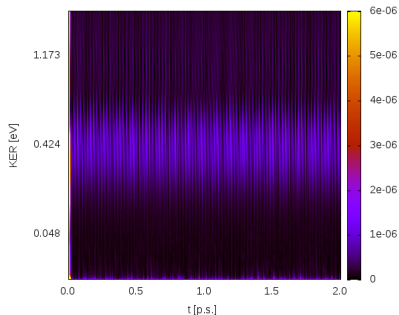
- ▶ Anomalies in a⁴Σ⁺ vibrational revivals, wavepacket oscillations



- ▶ Calculated max. beat frequency and beat frequency separation deviate from geometrically predicted results

CO⁺ KER spectra

- ▶ A²Π, C²Δ coupled channel propagation for 15 fs, 800 nm pump and probe laser pulses



- ▶ Plan to simulate X²Σ⁺, B²Σ⁺, a⁴Σ⁺ coupled channel propagation with C²Δ
- ▶ Need to calculate dipole transition matrix elements

CO⁺ KER power spectra

- ▶ A²Π, C²Δ coupled channel propagation power spectra is only noise

