## P5024: Ultrafast Pump-Probe Photodissociation Dynamics of CO<sub>2</sub> to produce O<sub>2</sub>

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- Control over molecular photodissociation is achieved on the femtosecond timescale
- 3 photon excitation of CO<sub>2</sub> leads to dissociation into CO and O
  - Red box on left
- 4 photon excitation induces a bending wavepacket, which is interrupted by an ionizing pulse to produce O<sub>2</sub><sup>+</sup>
  - Blue box on right





