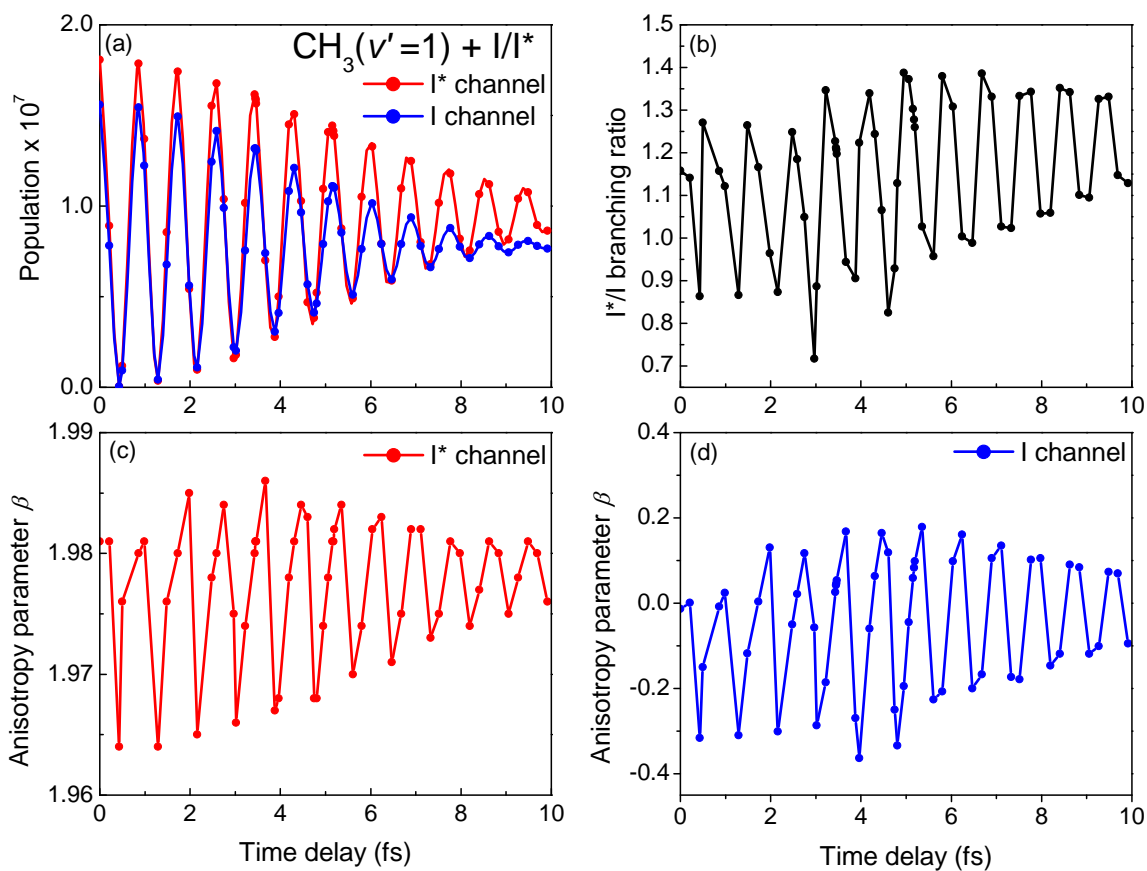


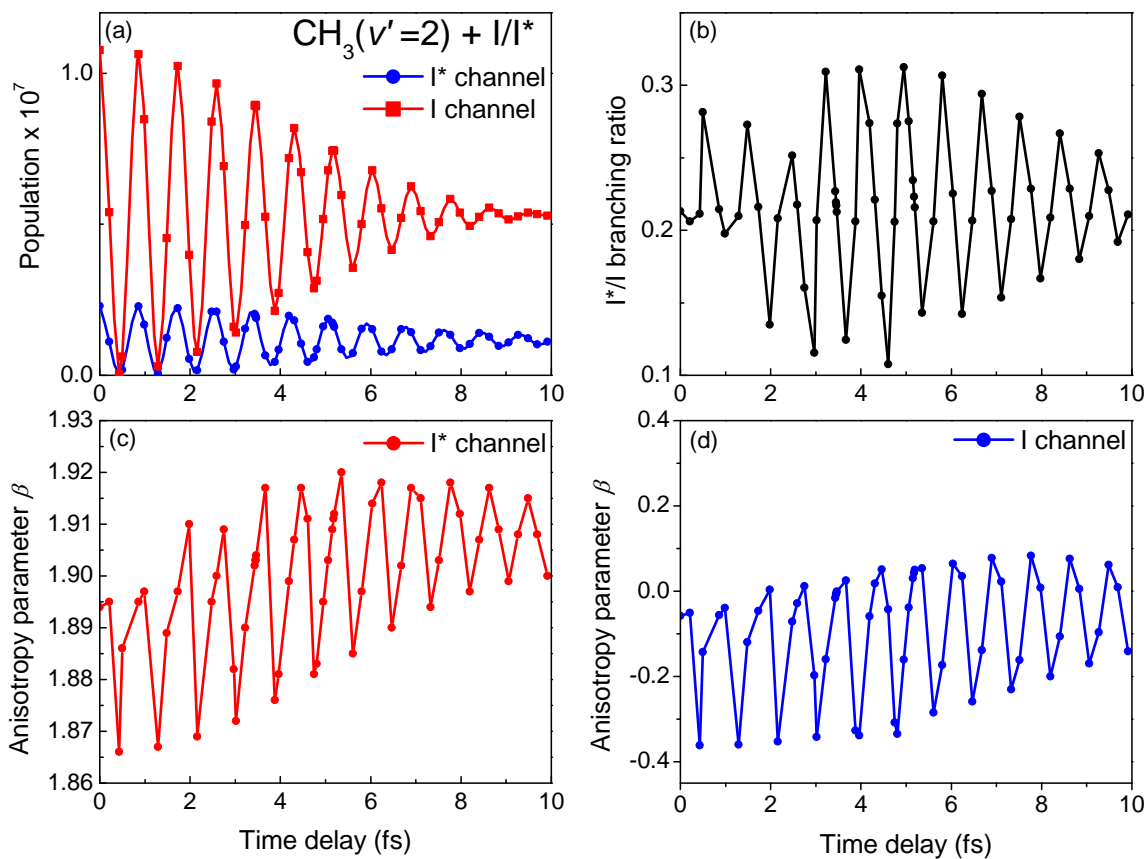
# Weak-field coherent control of photodissociation in polyatomic molecules<sup>†</sup>

A. Serrano-Jiménez<sup>a</sup>, L. Bañares<sup>b</sup> and A. García-Vela<sup>\*a</sup>

## Supplementary Information



**Fig. S1** Behavior of different observables with the time delay  $\Delta t$  between the two excitation pulses of the laser field of Eq (3) for the vibrational state  $v' = 1$  of the  $\text{CH}_3$  fragment. (a) Final populations in the  $I^*$  and  $I$  dissociation channels. (b) Branching ratio  $I^*/I$  between the final populations in the  $I^*$  and  $I$  dissociation channels. (c) Anisotropy parameter  $\beta$  associated with the angular distribution produced by dissociation through the  $I^*$  channel. (d) Same as panel (c) for the  $I$  channel.



**Fig. S2** Behavior of different observables with the time delay  $\Delta t$  between the two excitation pulses of the laser field of Eq (3) for the vibrational state  $\nu' = 2$  of the  $\text{CH}_3$  fragment. (a) Final populations in the  $\text{I}^*$  and  $\text{I}$  dissociation channels. (b) Branching ratio  $\text{I}^*/\text{I}$  between the final populations in the  $\text{I}^*$  and  $\text{I}$  dissociation channels. (c) Anisotropy parameter  $\beta$  associated with the angular distribution produced by dissociation through the  $\text{I}^*$  channel. (d) Same as panel (c) for the  $\text{I}$  channel.