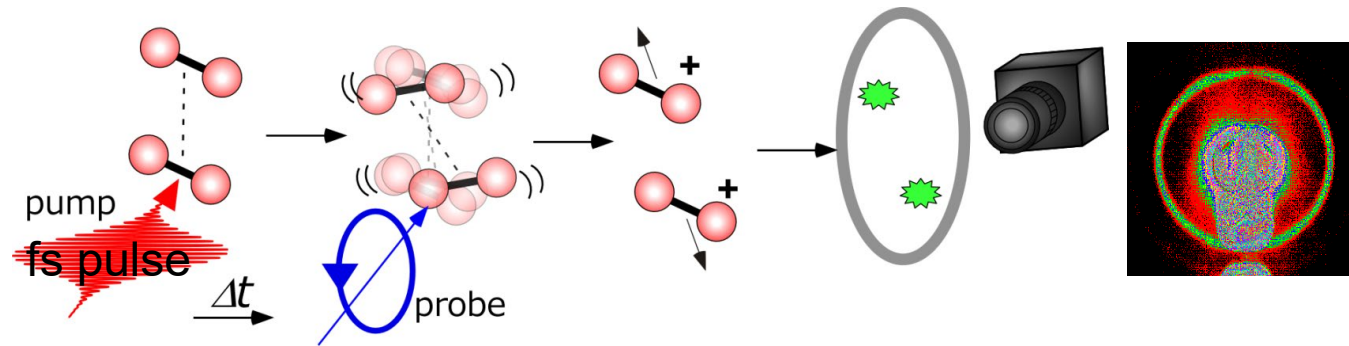


# RH08 P5664: Rotational and vibrational wave packet imaging spectroscopy: Broad bandwidth, high-resolution spectra and dynamics of weakly-bound molecular dimers, $\text{Ar}_2$ , $(\text{N}_2)_2$ , and $(\text{CH}_4)_2$

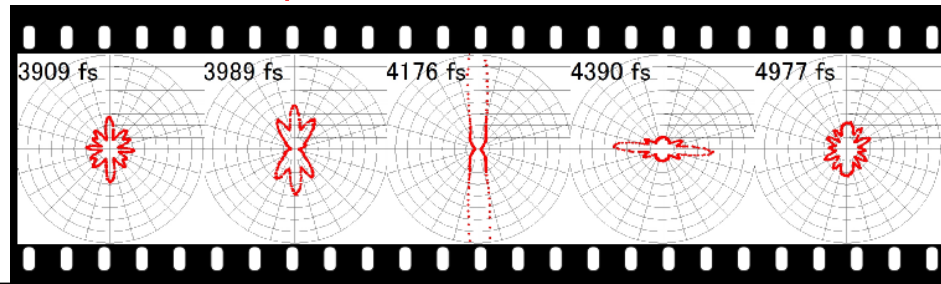
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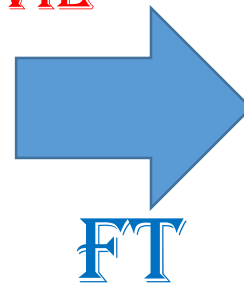
## Wave packet imaging spectroscopy of vdW dimers



## REAL TIME ROT/VIB. WAVE PACKET MOVIE

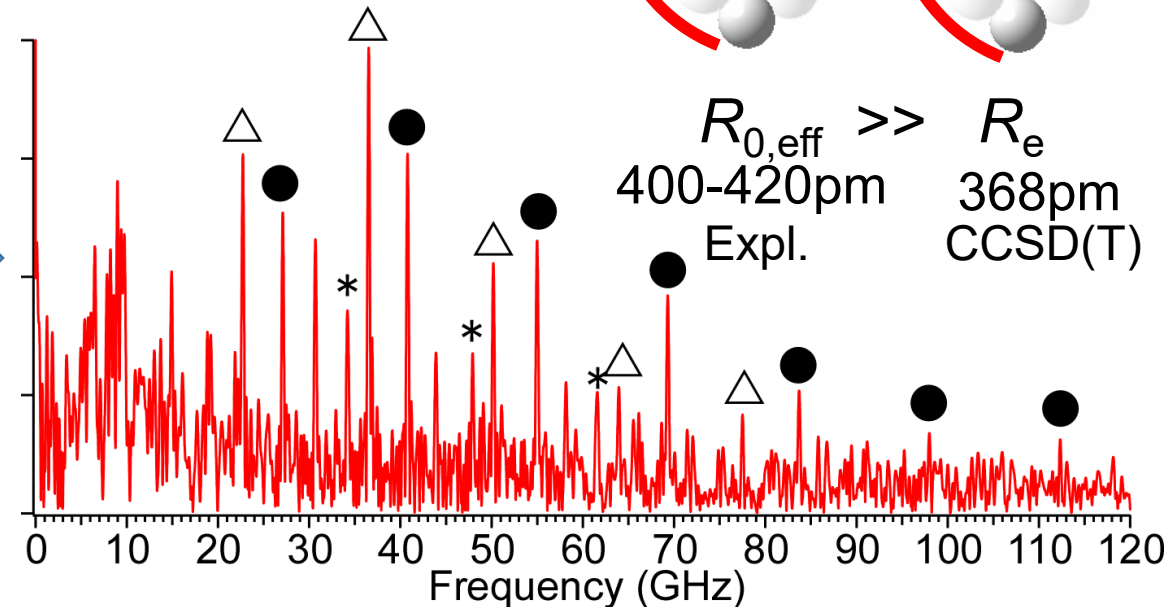
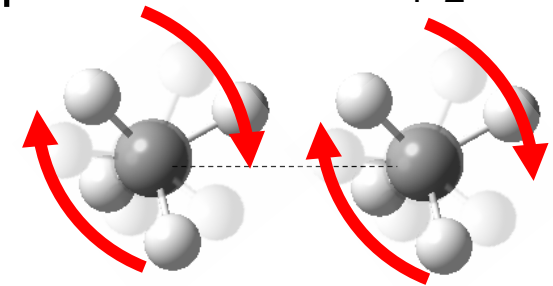


Broad bandwidth (DC~THz)  
High-resolution (50 MHz)  
Raman (complementary to IR/MW)



e.g., Rotational spectrum of  $(\text{CH}_4)_2$

$$B_{\text{eff}} \sim 3.4\text{--}3.6\text{GHz}$$



*Structures governed by internal dynamics*