

# Malcolm Gray

- Find pumping scheme of 4.83GHz maser:
  - - it's in vib. ground state of  $\text{H}_2\text{CO}$ :  $1_{10}$  to  $1_{11}$
  - - thought to involve higher vibrational states
  - - not enough publicly available data
  - - derive own set of levels from spect. constants
  - - 'manufacture' collisional coefficients
  - - run some RT models and find inversion
  - - trace pump under optimum conditions