

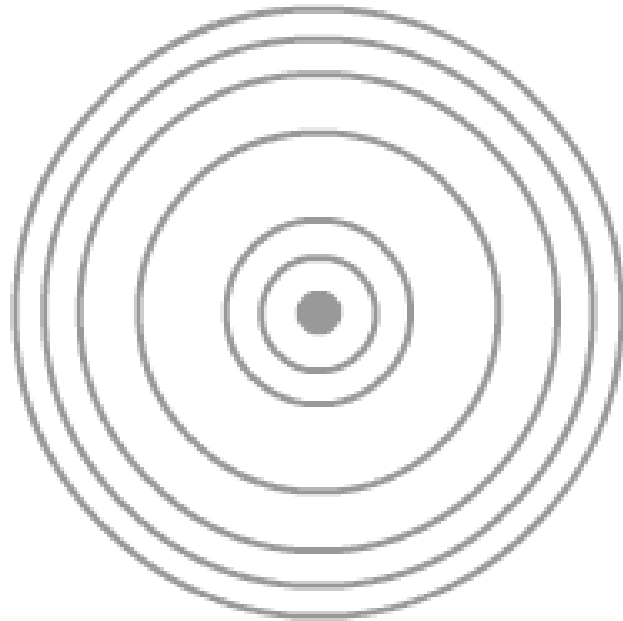
Microwave Manipulation of Atomic Energy Levels

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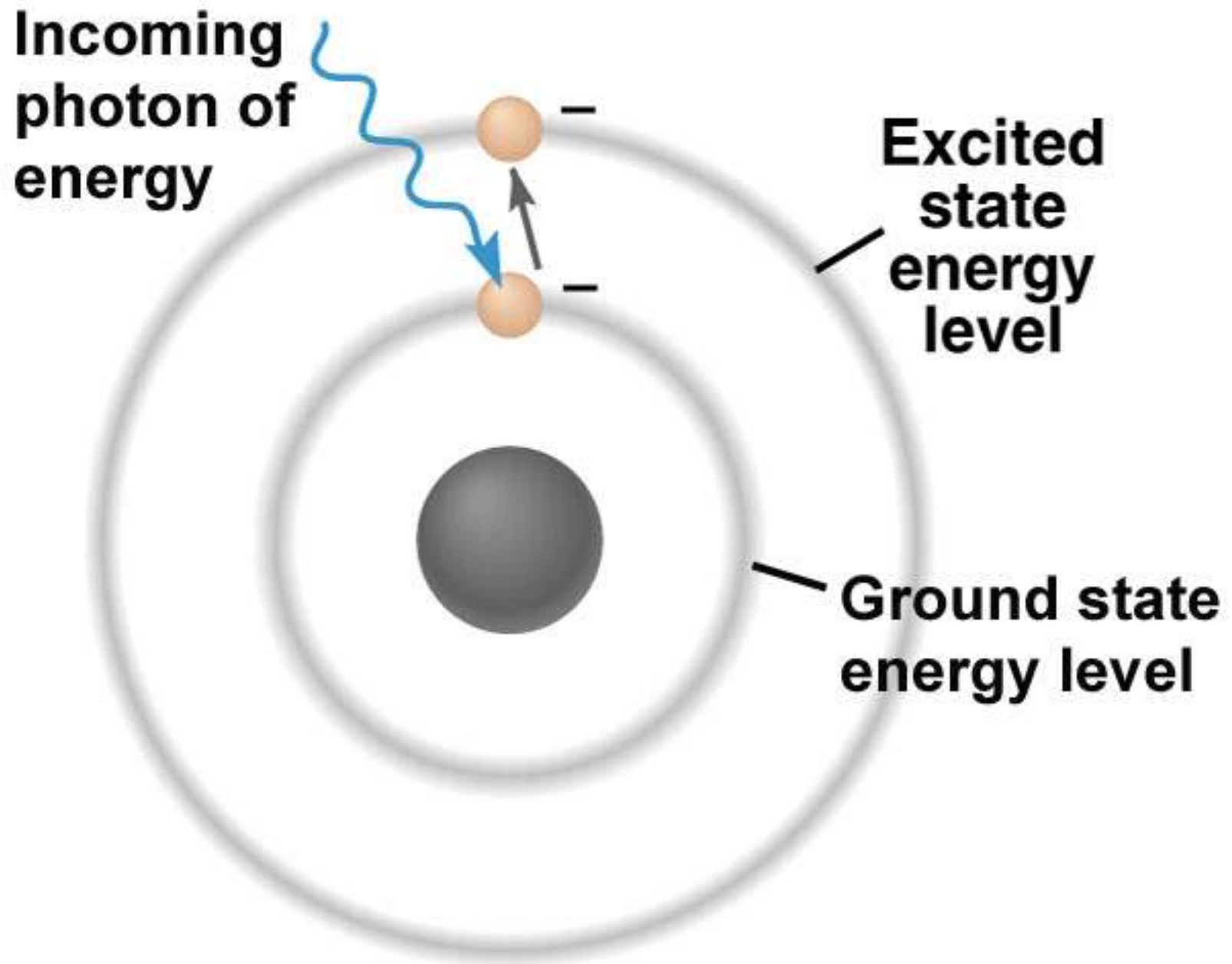




Electron orbits in a hydrogen atom

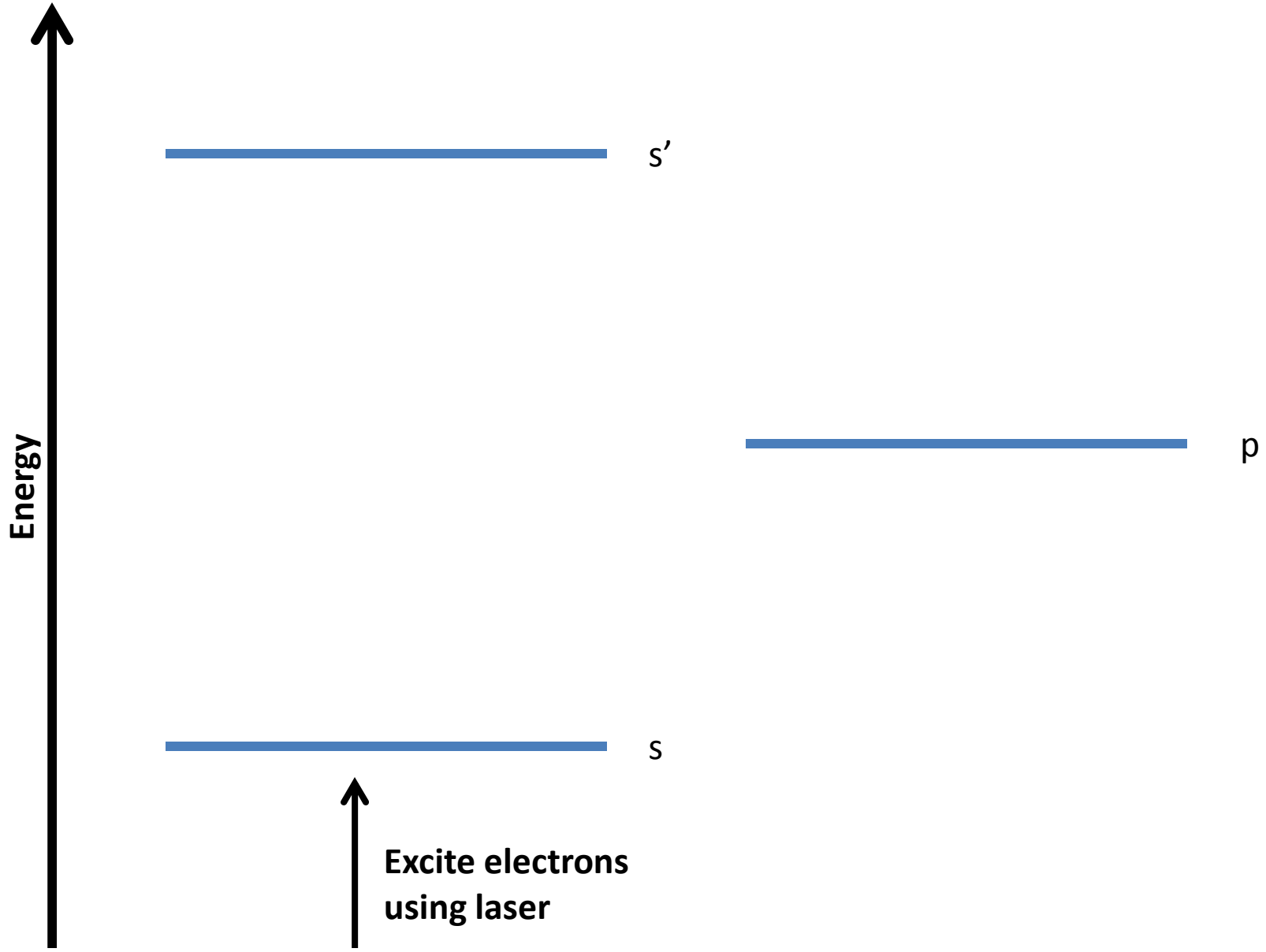


Electron levels in a hydrogen atom

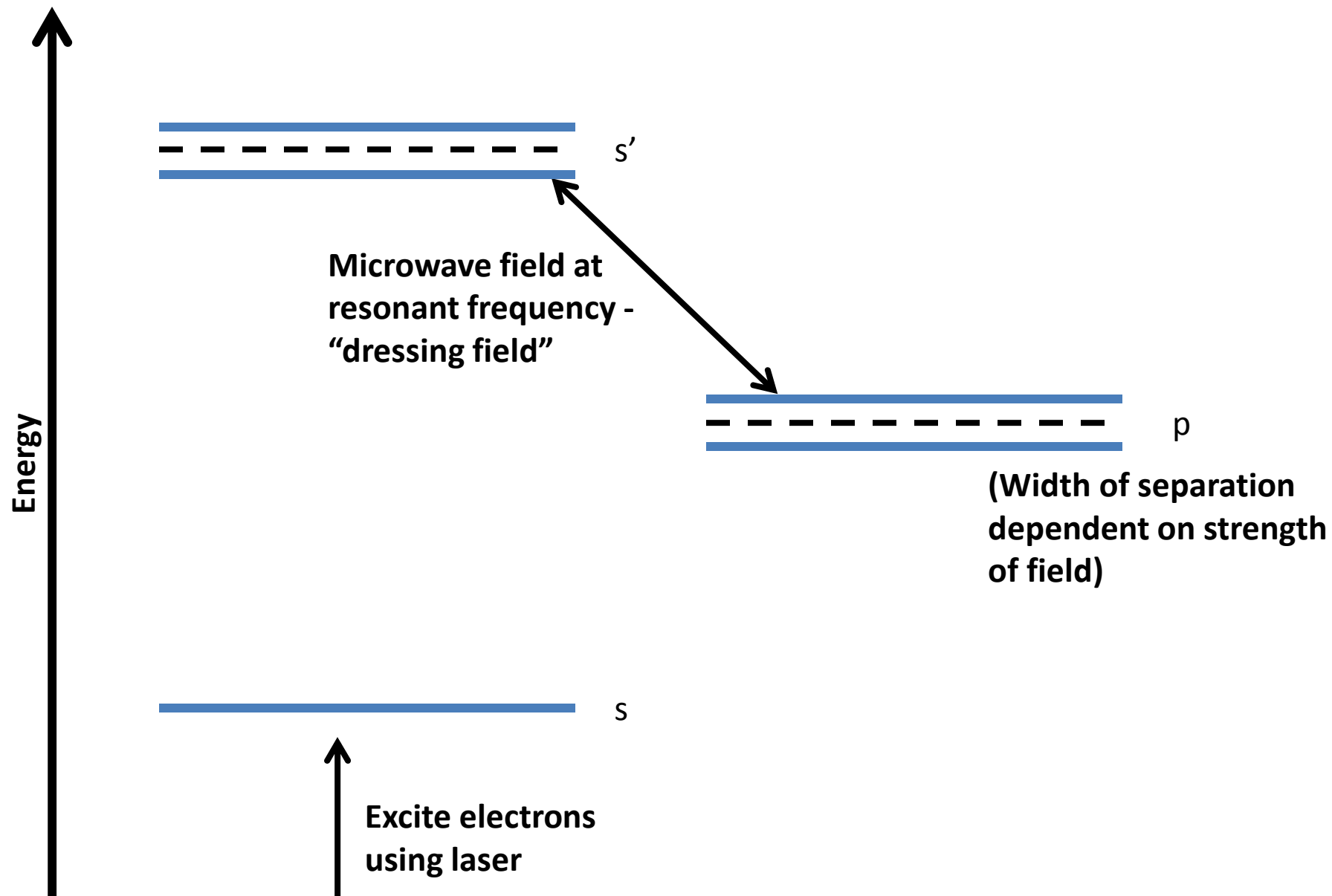




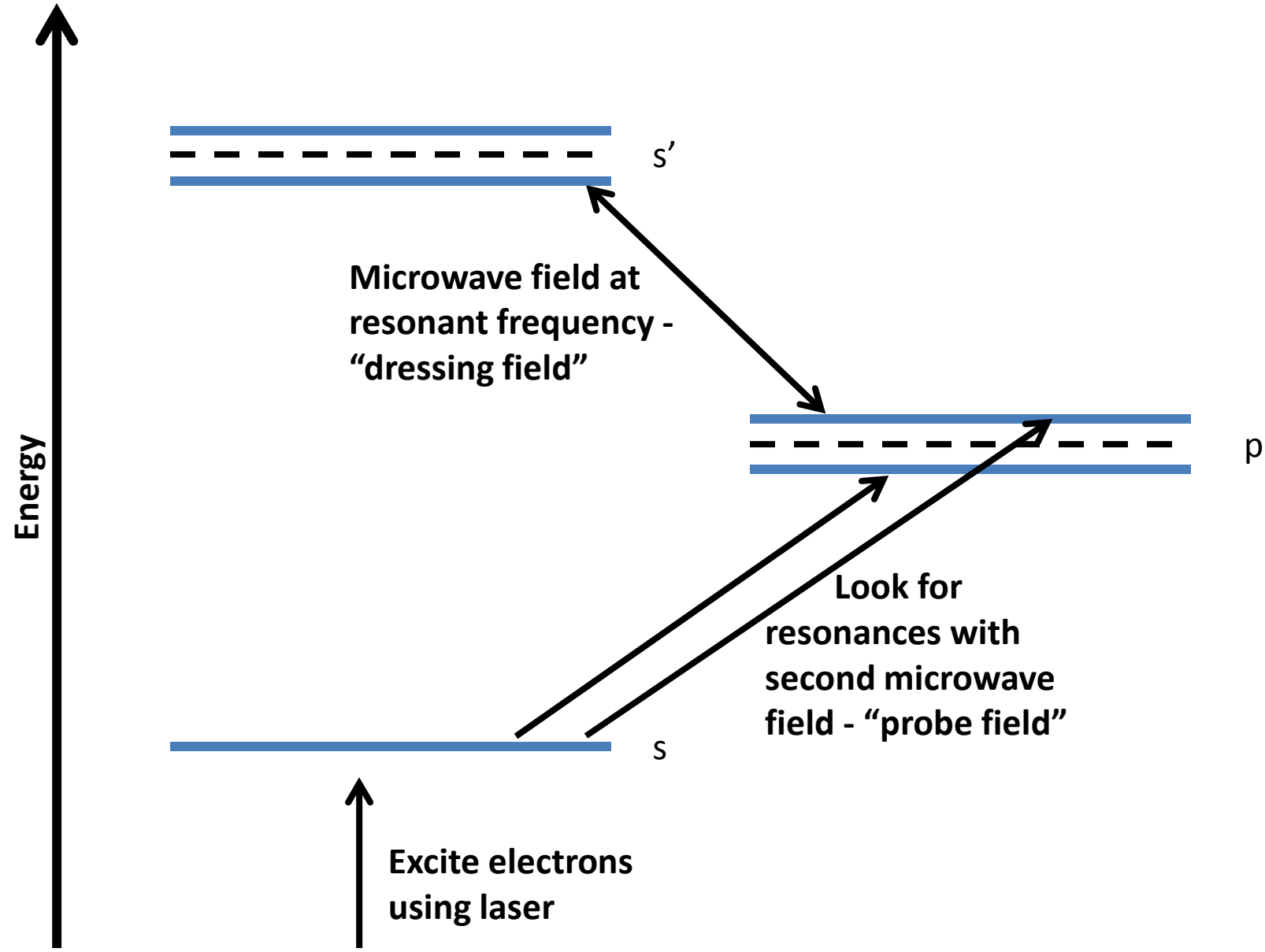
Coupling of energy levels



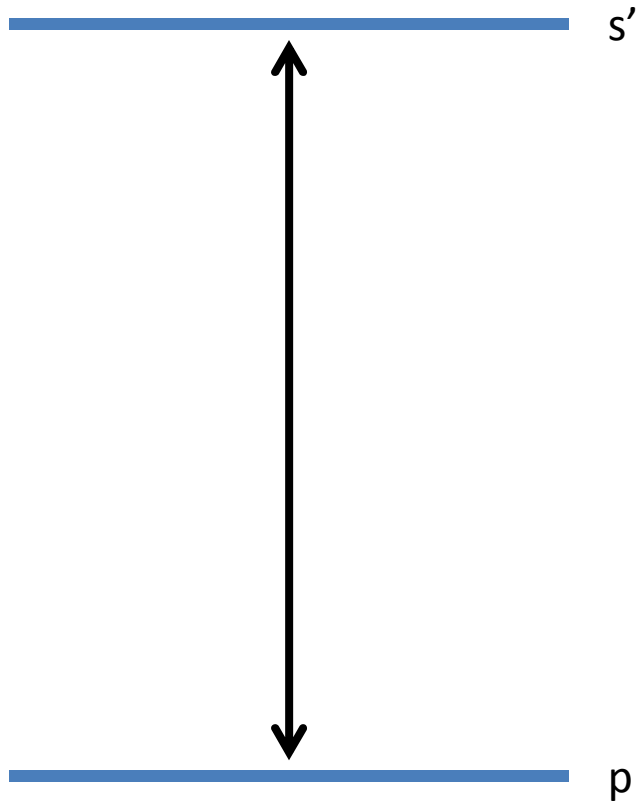
Coupling of energy levels



Coupling of energy levels



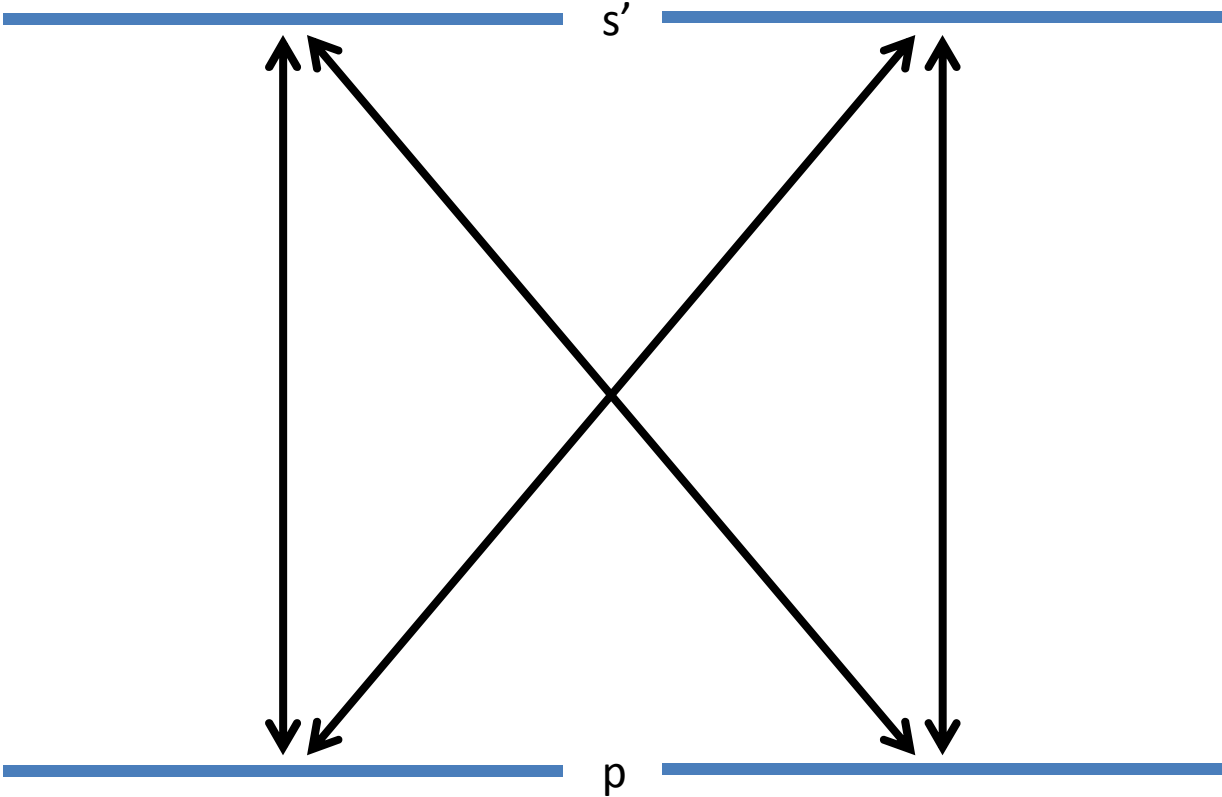
Purely linear polarization



With circular polarization

$+1/2$

$-1/2$



s' and p split in four



Time resolved field ionization signals

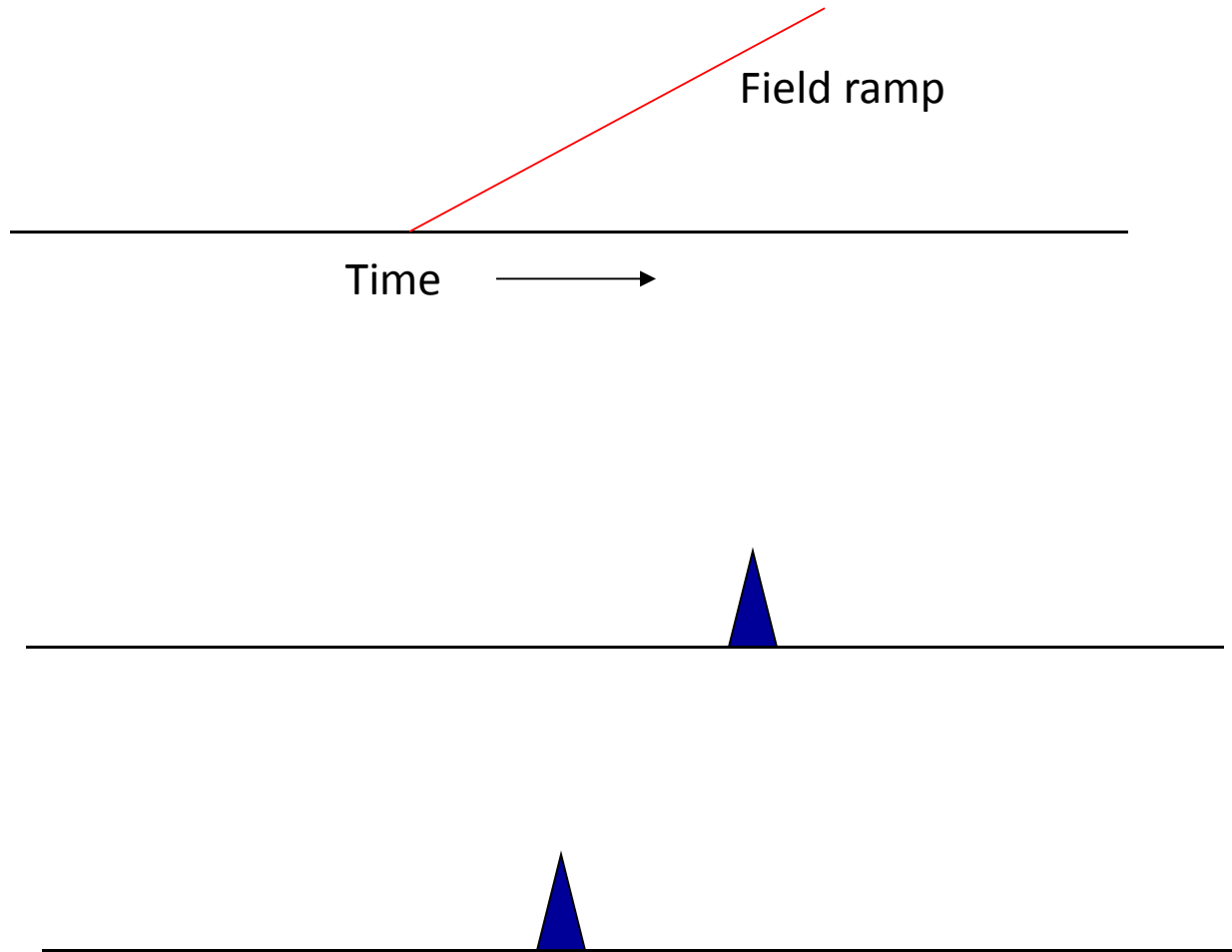
Voltage

Field ramp

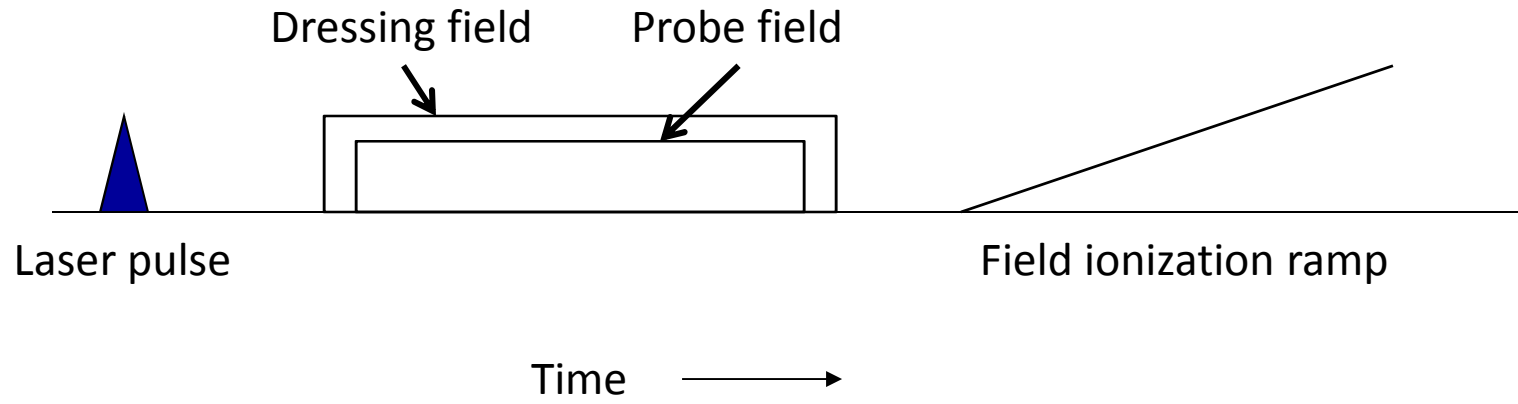
Time \longrightarrow

Atom with lower energy state

Atom with higher energy state



A timeline of one cycle of the experiment



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