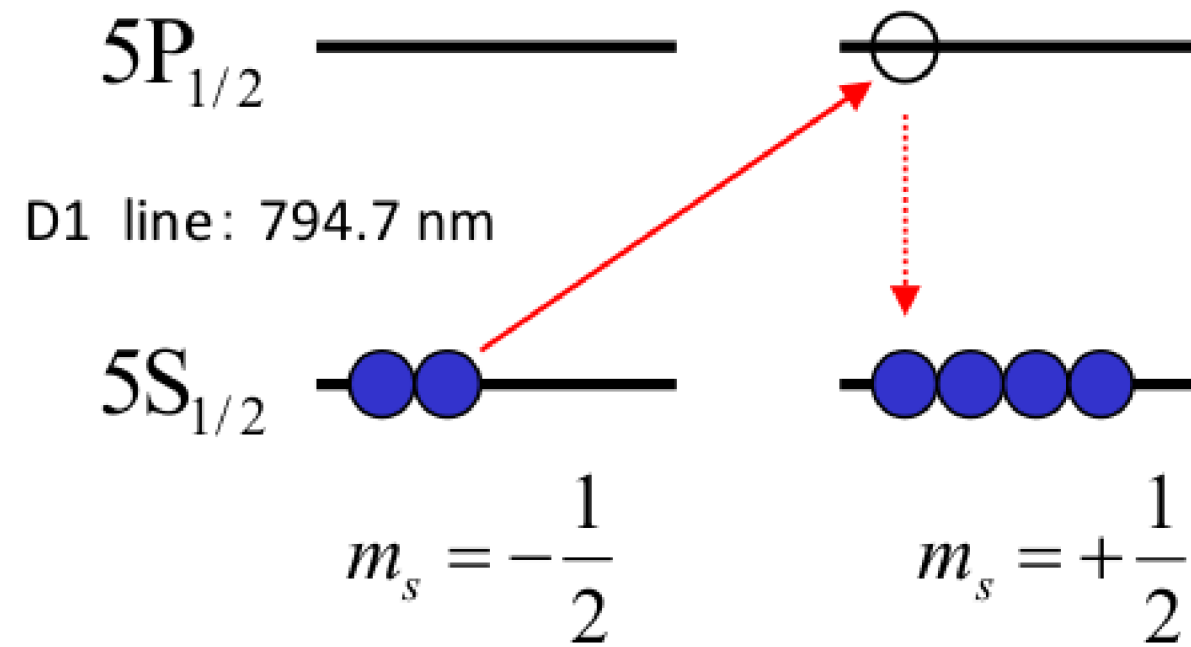


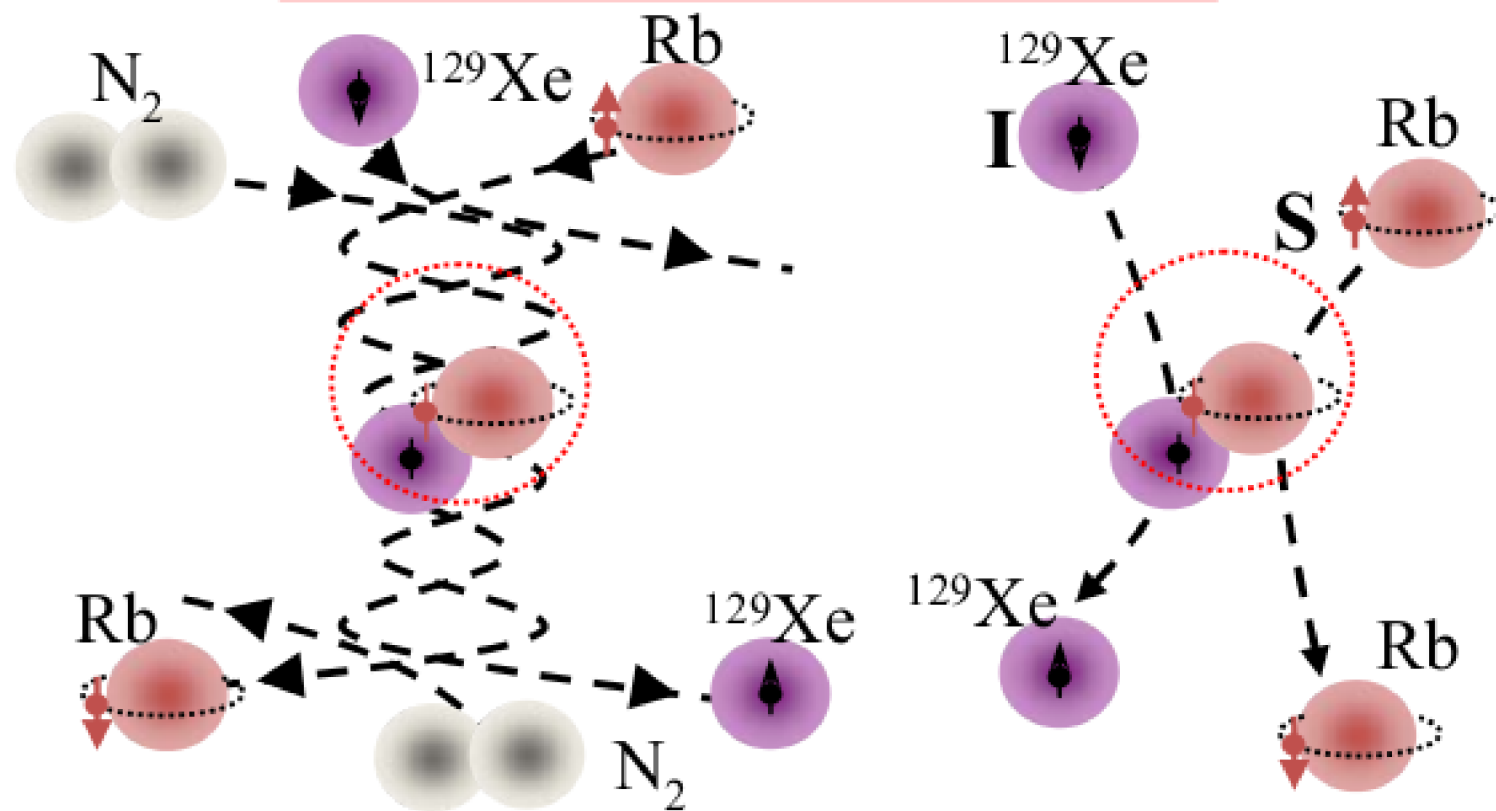
# Spin polarization of $^{129}\text{Xe}$ and Optical detection of nuclear precession

## Spin polarization of $^{129}\text{Xe}$

### Optical pumping Rb atom

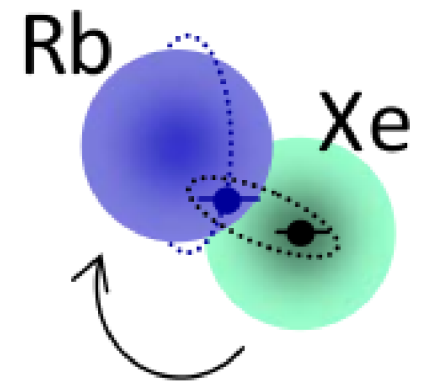


### Spin-exchange in Rb-Xe

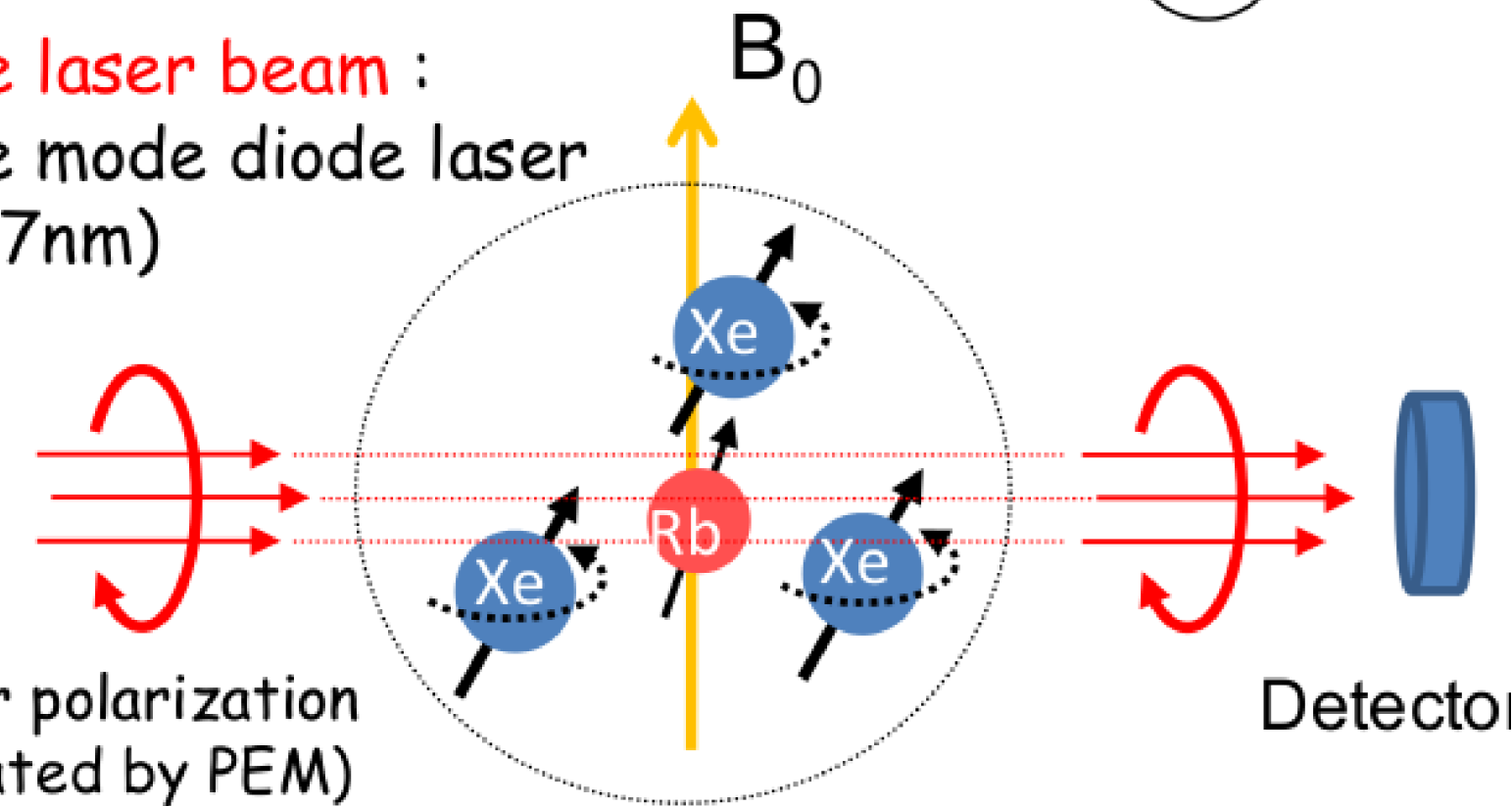


## Detection of precession of $^{129}\text{Xe}$

Transverse polarization transfer :  
 $^{129}\text{Xe}$  nuclei  $\rightarrow$  Rb atoms (re-pol)



Probe laser beam :  
single mode diode laser  
(794.7nm)



After  
half-period precession

