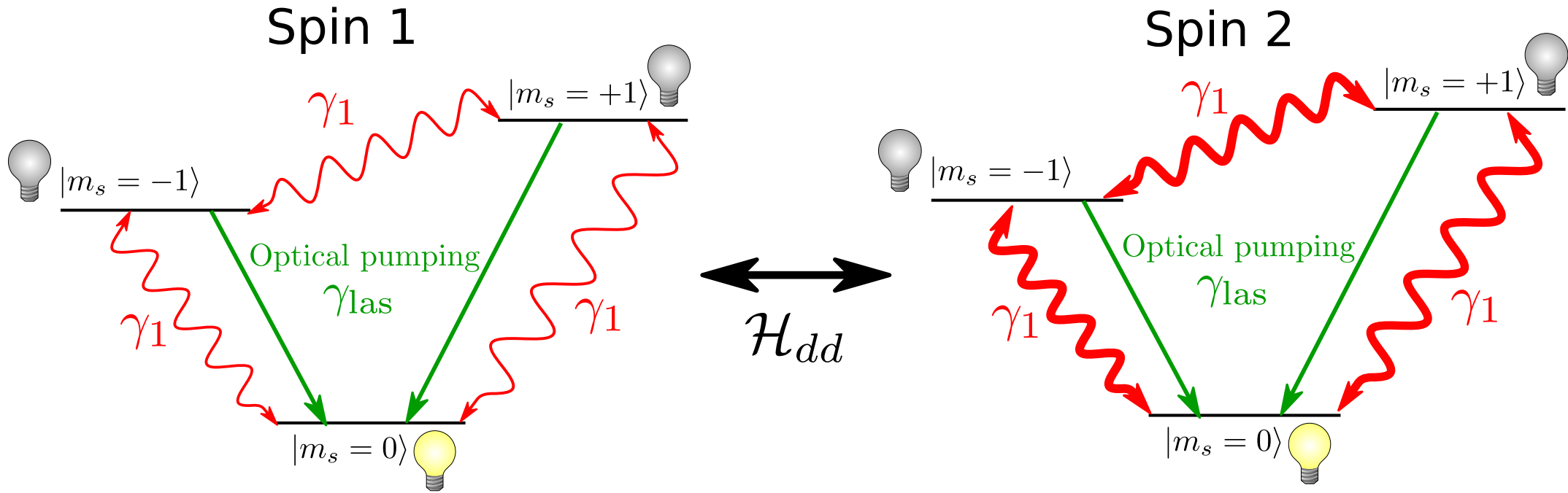
Inhomogeneous case : $\gamma_1 < \gamma_1'$



Spin 2 is less polarized than spin 1 ($\rho_{00}^2 < \rho_{00}^1$)

$\rightarrow$ The process $|0;-1\rangle \rightarrow |-1;0\rangle$ is more likely than $|-1;0\rangle \rightarrow |0;-1\rangle$

$\rightarrow$ The combined action of the dipolar coupling and the inhomogeneous relaxation rates can reduce the ensemble spin lifetime