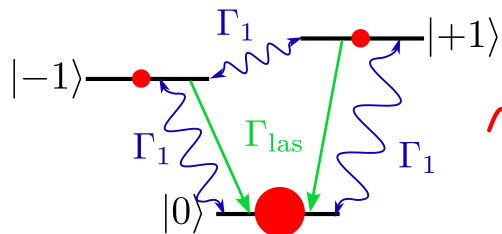
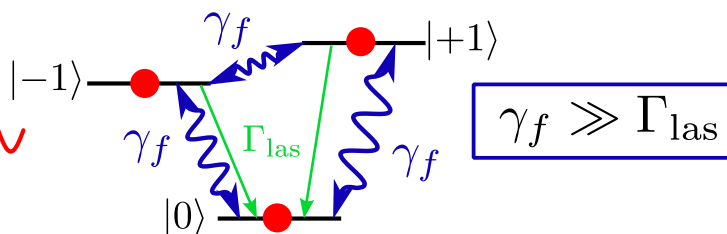


Normal NV



Fluctuator NV



Fluctuators are NV centers with a fast intrinsic depolarization mechanism



Localized noise sources with the spectral response of an NV center

Precedents in:

- P-doped Si
- solid-state NMR
- FRET

Possible microscopic explanation:

- charge tunneling
- modulation of J-coupling

Up to 1/3 of all NV centers could be fluctuators

Choi, Joonhee, et al. Physical review letters 118.9 (2017): 093601.