Split by magnetic field

$H_0 \sim \Sigma \, \omega_i \, \sigma_{zi}$

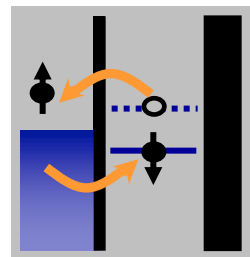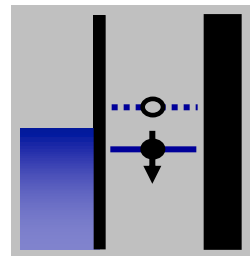Initialize

reservoir
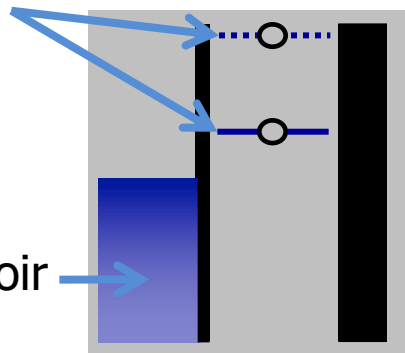
empty dot
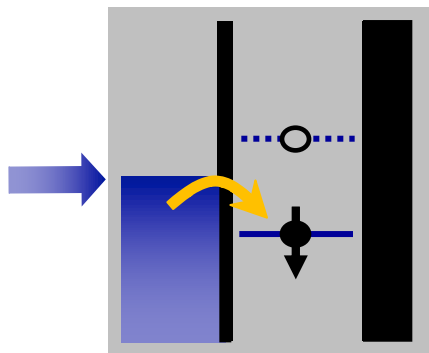
filled dot
spin down

readout

"SPIN UP"

"SPIN DOWN"

ΔI_{QPC} (nA)

Time (ms)
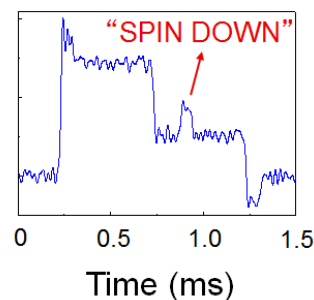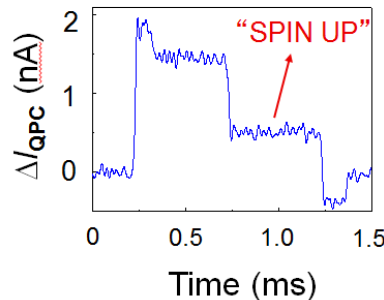
Time (ms)

J.M. Elzerman, R. Hanson, L.H. Willems van Beveren, B. Witkamp, L.M.K. Vandersypen, L.P. Kouwenhoven. "Single-shot read-out of an individual electron spin in a quantum dot." Nature 430, 431-435 (2004).