

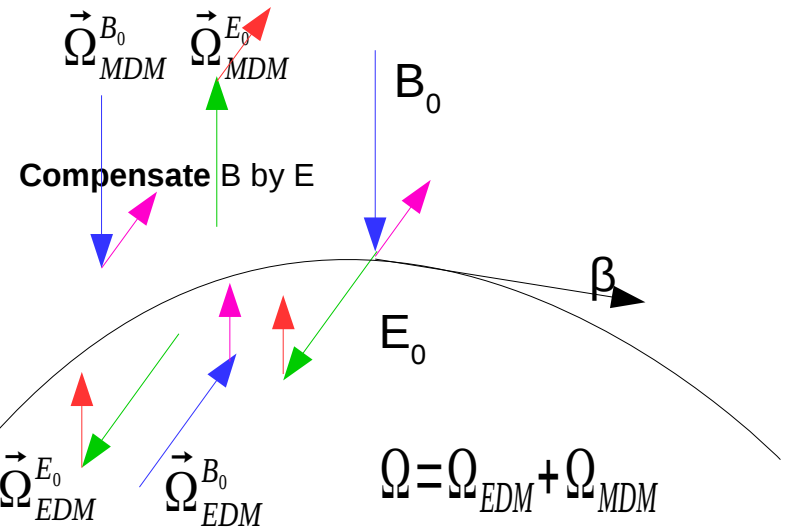
Misalignment

Principally unfixable in a deuteron ring (Lorentz force)

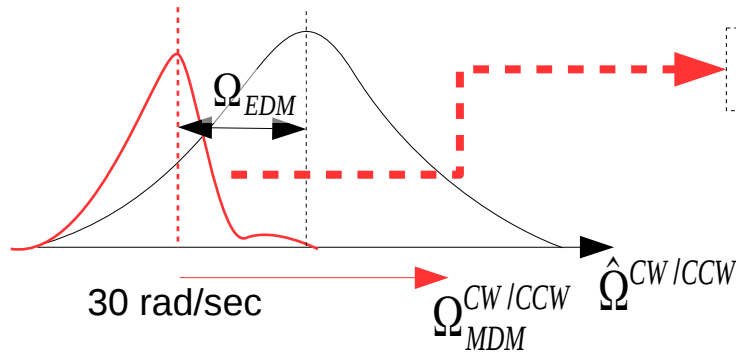
Non-zero MDM precession

Frequency measurement

CW/CCW comparison



$$\hat{\Omega}_{EDM} = \frac{\hat{\Omega}^{CW} + \hat{\Omega}^{CCW}}{2} + \frac{\Omega_{MDM}^{CW} - \Omega_{MDM}^{CCW}}{2}$$



$$\gamma_{eff}^{CW} \approx \gamma_{eff}^{CCW}$$

solenoid  $\Omega_y \approx 0$

Calibration in the **rs** plane

$$\vec{\Omega}_{MDM} = a_0(\underbrace{\gamma G}_{\vec{\Omega}_{MDM}^B})\vec{B} - a_1(\underbrace{\gamma G}_{\vec{\Omega}_{MDM}^E})\vec{\beta} \times \vec{E}$$

$$\vec{\Omega}_{EDM} = b_0(\underbrace{\vec{\beta} \times \vec{B}}_{\vec{\Omega}_{EDM}^B}) + b_1(\underbrace{\vec{E}}_{\vec{\Omega}_{EDM}^E})$$

Cross-correlation

$$\Omega_y \uparrow \quad \Omega = \sqrt{\Omega_r^2 + \Omega_y^2 + \Omega_s^2}$$

$\Omega_r$   $\Omega_s$   $\Omega_{MDM}$   $\Omega_{EDM}$

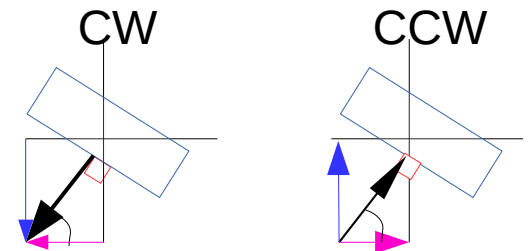
fading effect

$$\Omega_{rs}(\gamma_{eff})$$

measure

adjust

$B_y$



Geometry fixes  $B_y : B_r$   
reproduce **error** by reproducing **signal**