

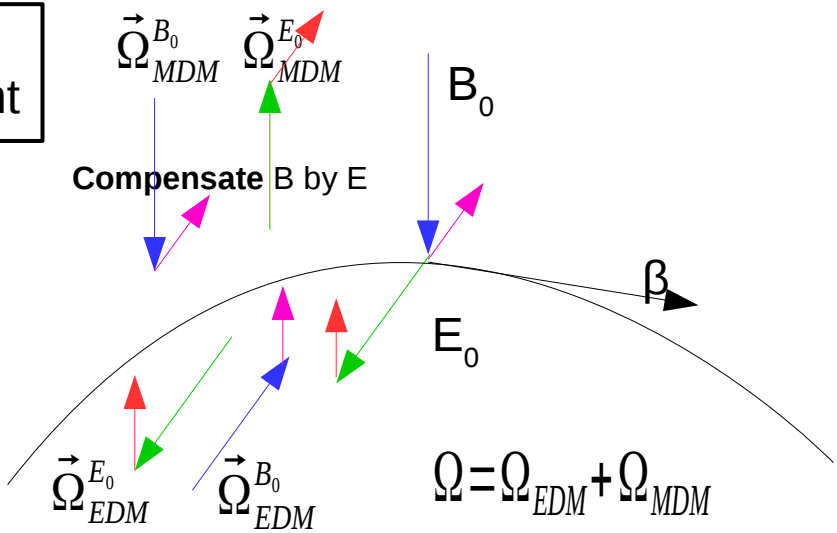
Misalignment

Deuteron ring:  
*either* stable  
 orbit, *or* no MDM  
 precession

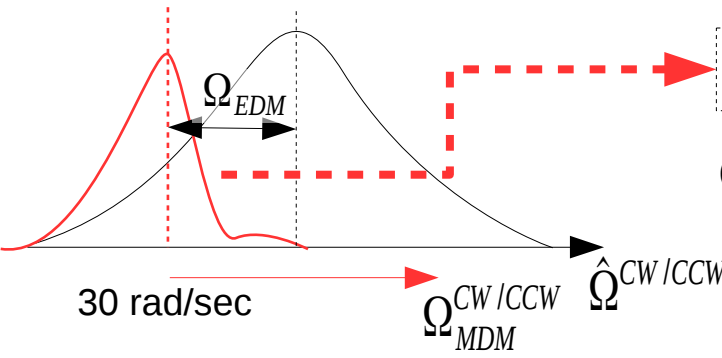
Irreducible  
**MDM**  
 precession

Frequency  
 measurement

CW/CCW  
 comparison



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



$\gamma_{eff}^{CW} \approx \gamma_{eff}^{CCW}$   
 Sextupoles  
 ( $\{S_x\}, \{S_y\}, \{S_D\}$ )

solenoid  
 $\Omega_r \approx 0$

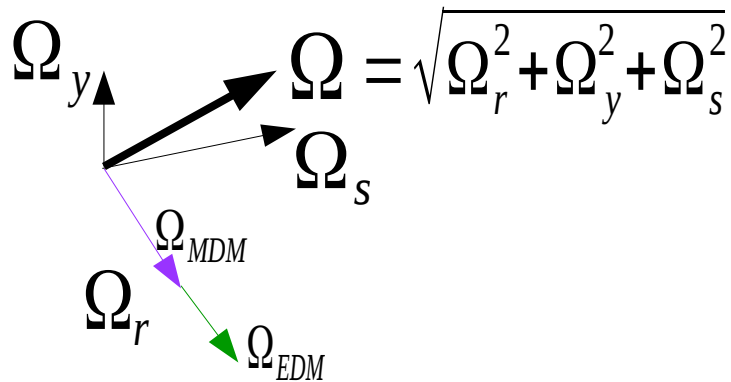
Calibration  
 in the **rs** plane

$$\Omega = \Omega_{EDM} + \Omega_{MDM}$$

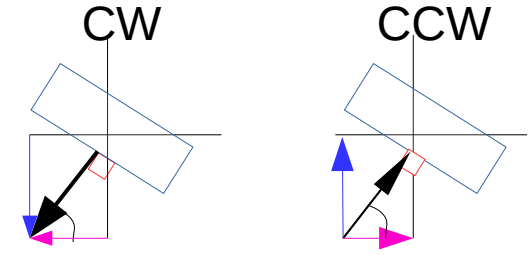
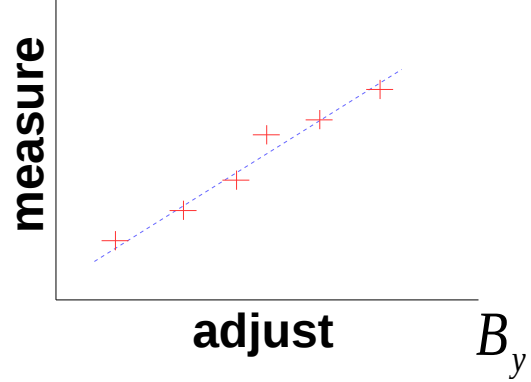
$$\vec{\Omega}_{MDM} = a_0(\underbrace{\gamma G}_{\vec{\Omega}_{MDM}^B})\vec{B} - a_1(\underbrace{\gamma G}_{\vec{\Omega}_{MDM}^E})\vec{\beta} \times \vec{E}$$

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

Confounding



fading effect  
 $\Omega_{ys}(\gamma_{eff})$



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