

$$B_{comp} = \frac{p}{qr} \frac{1}{2} \left( \cos \theta + \frac{1}{\cos \theta} \right)$$

*p* : Momentum of the particle

*q* : Charge of the particle

*r* : Major radius of the solenoid

$\theta$  :  $\text{atan}(P_T/P_L)$